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Editorial

William Barton

First Surgeon General of the U. S. Navy

ON November 17, 1786, a son was born in the Barton family, of Philadelphia, who was to add luster to the fame of the line of distinguished physicians from which he sprang. They christened him William.

This lad made the most of the educational facilities at his disposal, and in 1805 received his Bachelor's degree in Arts from the College of New Jersey (now Princeton), and entered upon his medical studies at the University of Pennsylvania, from which he took his M. D. degree in 1808. While he was in college, each member of his class assumed the name of some famous man, and young William took that of Count Paul Crillon.

The year after his graduation, Dr. Barton (then 23 years old) entered the Navy as an assistant surgeon, but being a man of exceptional energy and abilities and not unduly burdened with his official duties (though he served at various times on the frigates *United States*, *Essex*, and *Brandywine*) he took up the study of botany, in which he became so proficient that he was made professor of that subject at the University of Pennsylvania in 1816, and held that chair for 12 years, until he was made professor of materia medica and botany at

Jefferson Medical College, in 1828, where he served for two years.

Being a keen observer and able communicator, Barton began his literary career in 1814, with his "Treatise on a Plan for Organization and Management of Marine Hospitals," which laid the foundation for the important work he was to do later. In 1818, his "Vegetable Materia of the United States" was published; and in 1821, "A Flora of North America" (with colored plates).

In 1842, he was appointed the first Chief of the Bureau of Medicine and Surgery (Surgeon General) of the Navy Department, and at once put into practical effect the suggestions made in his first book, reorganizing and standardizing the procedure of the entire Bureau, with highly salutary effects. Among other things, he started the practice of placing a medical library in each naval medical unit.

In 1844, Dr. Barton was retired from the Service, and returned to his native city, where he died March 27, 1856, in the seventieth year of his age.

A bust of Dr. Barton stands in the Army Medical Museum at Washington, but he should have a more vital monument of remembrance and respect in the hearts of the members of his profession.

Totaquine

IT NOW appears that, while the war continues, the chief reliance for the prevention and treatment of malaria in this country will have to be placed upon *totaquine* — a mixture of the alkaloids extracted from various cinchona barks obtained from Central and South America.

Totaquine is a yellowish or grayish powder; odorless; bitter; almost insoluble in water; affected by light; and containing not less than 10 percent of quinine (a maximum content is to be established soon), and not less than 70 percent of total crystallizable alkaloids — cinchonidine, cinchonine, quinidine, and quinine.

Reports of various malaria commissions, covering many years of experience, and personal experiences of authorities in this field, leave no doubt that, in doses slightly larger than those of quinine, totaquine is as efficient as that drug in the treatment of malaria. The standard dose recommended is 10 grains (0.6 Gm.) three times a day.

Totaquine should be kept in tightly-closed, light-resistant containers.

As soon as suitably standardized totaquine is available, it will be released to drug distributors, hospitals, and dispensing pharmacists; and physicians should be on the alert for an announcement of this fact so that they can begin prescribing and using it.

Full details in regard to this drug, including tests for its various constituents, can be obtained, by those who need such information, from E. Fullerton Cook, Chairman, Committee of Revision of the Pharmacopeia, 43d St. and Woodland Ave., Philadelphia, Pa.

It is doubtful if anyone ever made a success of anything who waited until the conditions were "just right" before starting.

—*Kalends of the Waverly Press*

A Favorite Charity

THE WORD, charity, is relative. A dollar from a workman earning twenty dollars a week is relatively a greater contribution than a thousand dollars from a rich man. And there are those who think or feel that the personal publicity sometimes attendant upon a large dona-

tion to a charity does something to cancel out the true spiritual worth of the action.

It is precisely because the National Tuberculosis Association has been supported by the one- and two-dollar contributions of the American public that this annual Christmas Seal Campaign is peculiarly American. There is never any publicity attendant upon one- and two-dollar donations. The American public that makes these donations neither wants nor expects publicity for them. And it is these people, unpretentious, and these dollars, many of them hard-earned, that are largely responsible for reducing tuberculosis as a cause of death from first to seventh place since 1912.

The very life-blood of this thirty-eight-year-old movement has been the one- and two-dollar contributions of unpretentious and even poor people. They have never failed the work before. They will not fail it now. Older America *knows* it is a good thing. Young America *feels* that it is a good thing. Their dollars will again bring life and health to thousands of people, for this is the favorite health campaign of the United States.

It is not the presence of an ideal that saves, but the fearless, stronghearted devotion to an ideal.—W. JETHRO

A Serial Reference Book

EVERYONE who really tries to keep abreast of what is happening in the world, or even in one profession or trade, needs (and most of them have) several reference books—a good English dictionary (and also a medical dictionary, for the physician), an encyclopedia of some sort, an atlas (as nearly up to date as possible), and perhaps one or two others.

Professional men, and even those in the skilled trades, must also subscribe to one or more magazines devoted to their specialty, and must *study* it or them. But even when they do this, they cannot possibly retain in memory more than a part of the important and helpful things that they read, and if they lose or destroy their technical magazines soon after they are received, they are wasting something for which they have paid good money.

A file of bound volumes of **CLINICAL MEDICINE** (or even the unbound copies, if they are kept, in order, on a shelf, with the *index* in each December issue) is one of the most valuable *reference works* a physician can have. We know this extremely well, as we are

using such a file every day, and rarely fail to find needed information, on any live medical subject, in a very few minutes because "C. M." follows the march of progress in our profession with a thoroughness that amazes even us, who are making the Journal, when we use the current and back files as a reference book.

If you have not been keeping your copies and using them in this way, *start now* and begin to collect annual *dividends* on the investment you are making. They are handier to use if you have them bound into a volume at the end of each year. We will take care of this for you at a moderate cost (what the binder charges us—about \$2.50 a volume—plus the transportation both ways) if you will send us your file of twelve numbers at the end of the year.

Do not worry about the change in size this year, because, by trimming the margins of the earlier issues rather close, it will be possible to make a slightly volume out of this year's numbers.

If you don't want to go to the expense

of having them bound, keep them, anyway, and put them on the shelf, in the order you receive them, and turn to them when you want to look up some matter on which you need information. The *index*, which comes in December, makes this easy. In a year you will be as astonished as we are, every now and then, at the amount of valuable knowledge they contain.

And if you should fail to find the particular item you want, remember that one of the worthwhile things you purchase, along with your subscription, is the *personal information service* we

are glad to render to all our regular readers on request. Our large library and trained staff are at your disposal (if you are a subscriber) for the price of a post-card or a three-cent stamp.

NEXT MONTH

Golden Anniversary

Medical Progress Number

The history of this magazine, during fifty years, will be briefly sketched by the Editor.

Dr. Joseph C. Urkov, of Chicago, will give some illustrated examples of progress in skin grafting and facial surgery technics.

Dr. Leon Reznikoff, of Se-caucus, N. J., will describe, as an example of progress in psychiatry, the treatment of mental disorders with electric shock.

Dr. James H. Hutton, of Chicago, will outline the recent progress in endocrinology.

COMING SOON

"Coccidioidomycosis," by Charles D. Marple, M.D., San Rafael, Calif.

"Pictures for Medical Articles," by George B. Lake, M.D., Waukegan, Ill.

BETHLEHEM

*The inn was full. A manger
Was all that they could find,
And so He came, a stranger,
Who brought love to mankind.
The angels knew,
The cattle knew,
The world of men was blind.*

G. B. L.

LEADING ARTICLES



Geriatrics and the General Practitioner

By MALFORD W. THEWLIS, M.D., Wakefield, R. I.



DR. THEWLIS

The importance of caring for our older citizens increases steadily. Dr. Thewlis makes pertinent and practical suggestions for family physicians.

IN a few years the past-60 age group may be larger than the group including infants and children up to 9. There are now more than 13,000,000 persons past 60 in the United States. A large proportion of those aged people could contribute to the war effort, and substitute for younger men absorbed by the armed forces.

Those who concentrate on theory are sometimes prejudiced against geriatrics because the determining factors of ageing are still vague. To a large extent they may remain so, since heredity obviously is one of them. Although the cause of cancer is still obscure, treatments are known. One must care for the aged even if one does not know why they grow old. It is not possible to dismiss the value of clinical evidence, the general practitioners' everyday knowledge of hereditary and environmental factors, the problems of aged persons, and the application of modern medicine to the peculiarities of the senescent patient.

Preventive Geriatrics

The layman is demanding preventive geriatrics, the scientific approach to which is preclinical medicine, dealing with predisease, disease tendencies, and disease soils. An intimate study of a family, over a period of years, often enables the family physician to predict what disease the patient is likely to have.

No one has a better opportunity to study predisease than he. The application of principles based on pathologic possibilities does not mean that he should unduly frighten the patient, however, but rather to inspire advice which may, if followed, postpone or ward off disease. Geriatrics and preclinical medicine may be combined legitimately as a specialty in medicine.

Here is an example of the application of preclinical studies to geriatrics: A man of 50 has a systolic blood pressure of 150 and a diastolic pressure of 102 mm of mercury. Several relatives had arterial hypertension. Telling the patient that his blood pressure is slightly above normal and may gradually increase in years to come, if not given proper attention now, may cause him to accept a regimen of weight reduction, if he is overweight; to avoid undue stress and strain in business and social life; and to realize the advisability of an even balance of meals, an extra hour of sleep, and less alcohol and tobacco. Avoidance of stress and strain alone will often reduce the blood pressure to such an extent that a long life becomes probable, although in some instances, unfortunately, nothing will alter the picture.

Treatment of Aged Patients

A good history is essential in the practice of geriatrics. One criticism may be made of the average general practitioner's attitude toward aged patients: He often overlooks a complete history and fails to make a thorough physical examination. It is too exhausting for many aged persons to undergo a series of tests, and the general practitioner must return to the older methods of physical diagnosis—observation, percussion, and auscultation. However, a person of advancing years may have gastric symptoms and be expecting to have roentgen-ray studies, gastroscopy, and gastrophotography undertaken, only to be dismissed by the physician, after a few questions and a few pills, and told

to report if he does not improve. Such a patient may take pills dutifully for a few days, but usually winds up in a clinic where he is given the benefit of a thorough investigation. Nothing is more damaging to the medical profession than this casual snap diagnosis and haphazard therapy.

Lack of interest in the aged leads to many errors in diagnosis. Pulmonary tuberculosis may be overlooked, and hypothyroidism is frequently passed by, because a chest roentgram or simple basal metabolism test has been omitted. The results of thyroid medication are, in many instances, excellent.

In elderly persons, hypoglycemia is frequently overlooked. It causes weakness, nervousness, and varied symptoms, which are relieved when the patient takes an adequate amount of sugar. Sugar in the blood should be estimated as a routine. The procedure often shows up diabetes, which otherwise might have been undetected.

Macrocytic and microcytic anemia are frequently missed because blood counts are not always made. Every patient is entitled to at least one complete blood examination a year, but this simple procedure is often neglected.

The diet of aged patients is important and should be carefully studied. Prolonged use of vitamins may markedly improve the general health of the old people.

In older patients, endocrine therapy is frequently indicated, especially desiccated thyroid. In some instances, estrogenic therapy yields excellent results. One should not be over-enthusiastic about endocrine therapy in old age, but should be able to detect precise indications for its use.

Simple therapeutic measures are often effective in treating disease. The physician who is not blind to indications for sodium chloride and water will make patients more comfortable, or may even save their lives. During the hot months, the physician must watch for dehydration. For several years, I have advised elderly patients to use an enteric-coated sodium chloride tablet, followed by a glass of water, several times a day during the summer. This has eliminated many distressing conditions.

On the other hand, many obese elderly persons are in a state of subclinical edema, and a few days' rest in bed, with restriction of fluids and sodium chloride, will definitely alter the picture. This is especially indicated before and after surgical operations.

Simple household remedies are often

of value for the treatment of simple ailments. An old-fashioned poultice will frequently relieve pain; and wet dressings of saline or boric acid solution will make the patient more comfortable if he is suffering from some types of dermatitis. Whisky should be on hand in case of sudden weakness due to unknown causes. A suds enema may give relief from gastrointestinal distress of unknown origin.

Physicians should be aware of the most recent developments in medicine, and elderly patients should profit by their knowledge. No longer does one consider a person of 80 doomed because of pneumonia. One should not hesitate to use the sulfonamides intravenously, in severe infections, nor should one hesitate to have ureteral catheterization performed if there is a block due to acetylated sulfadiazine.

Surgery of the Aged

Surgical conditions and infections, hitherto considered serious, yield to the use of modern drugs. The sulfonamides have revolutionized medicine, reducing the duration of illnesses and curing diseases previously considered fatal.

Surgery has made striking advances in the care of the aged, and the new methods of producing anesthesia and improved surgical technics have made it possible to perform operations on the very old. Preoperative use of the sulfonamides has prevented serious postoperative complications. Increased skill in handling the sulfonamides and awareness of the dangers attending their use are encouraging. The general practitioner must recognize the dangers inherent to the use of such powerful drugs, remembering that it is possible to cause renal failure when the kidneys are diseased, or to produce interrenal tubular block because of acetylated sulfonamides. Bone marrow failure should be detected by frequent blood counts.

The surgeon need not hesitate to perform any operation which he would use on persons in their forties, if the elderly patient is in good physical condition. Even a brain tumor may be removed in old age, and pulmomectomy may be advised for carcinoma of the lungs. A bold surgeon may be repaid for his nerve and skill by the satisfaction of seeing an old person recover and live usefully for several years. Cholecystectomy may save great suffering in old age. Hysterectomy can be performed in old age and relieve countless discomforts.

Urologic surgeons paved the way for a better understanding of the possibilities of geriatric surgery. They taught us

that it was possible to do major operations on elderly persons. They gave us transurethral surgery, which makes it possible for many old men to lead a normal life after suffering from the effects of prostatic hypertrophy.

The general practitioner has a grave responsibility for his elderly patients. If he neglects to give them the benefit of every advance the medicine and surgery

have made, he is sadly neglecting his duty.

References

- Bauer, D. de F.: *Geriatrics and the War*. McGill Univ. J., 11:82, 1942.
 Thewlis, M. W.: "Preclinical Medicine," Baltimore, 1939, Williams and Wilkins.
 St. Louis, 1942, C. V. Mosby Co.
 Thewlis, M. W.: "Care of the Aged," ed. 4, 25 Mechanic St.

Clinical Diagnosis of Ovarian Tumors*

By WALTER SCHILLER, M.D., Chicago, Ill.

Director of Labs., Cook County Hosp.

It is highly important that the general clinician should be able to make fairly accurate diagnoses of pelvic tumors before he operates or refers the patient to a surgeon. Dr. Schiller makes valuable suggestions toward that end.

SOMEONE once propounded the facetious question, "What's the difference between a pickpocket and a gynecologist?" and the answer was, "The gynecologist doesn't know what he's snatched until a pathologist tells him." This, however, is not always true, as it is possible in most cases (perhaps 90 per cent) of ovarian tumors, to make a reasonably accurate diagnosis preoperatively, by clinical methods alone: (1) palpation (bimanual); (2) a study of the endocrine symptoms (menstruation, etc.); and (3) certain special tricks.

Definitions and Characteristics

A few definitions and brief descriptions of the characteristics of a few ovarian tumors may simplify this discussion.

Some physicians use the words *cyst* and *cystoma* as if they were synonymous, but, in fact, the two conditions are quite different.

A *cyst* is a dilatation of a physiologic structure; grows at the expense of the epithelium; tends to degenerate or regress, so that the larger it is, the nearer it is to its end; is relatively small (up to walnut size); never becomes malignant; and may safely be opened and drained conservatively.

A *cystoma* (see Fig. 1) is a new growth; grows by activity of the epithelium; shows no tendency toward spontaneous cure; tends to become papillomatous, multilocular, or even malignant; and should be removed radically.

A woman with a follicle cyst shows amenorrhea and is relatively sterile, because no other follicle will mature while the cyst is present, hence there is no

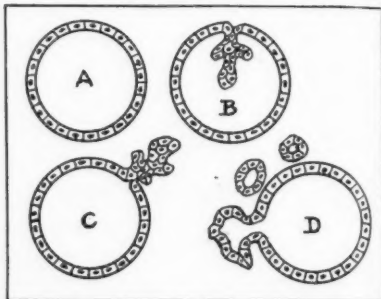


Fig. 1: Diagram of the development of a cystoma: (A) the growing epithelium; (B) an internal polyp; (C) an external polyp; (D) formation of a multilocular cyst, with partly and completely developed daughter cysts at the left and above.

ovulation, no menstruation (since no corpus luteum is formed), and no premenstrual changes in the uterine mucosa. Such cysts are common and are frequently multiple, when we speak of the case as one of *cystic degeneration of the ovary*. At operation the cyst-bearing area only should be removed.

A *corpus luteum cyst* has the same general characteristics, but produces progesterone, and the uterus shows a deep, secreting mucous membrane. Such tumors are rare; never multiple; almost never recurrent; and generally occur after pregnancy and delivery. At operation, the cyst should be removed but not the entire ovary.

In studying these cases at operation, remember that a woman in the child-bearing age is entitled to have several developing follicles, 3, 4, or 5 mm. in

*Abstract, by G. B. L., of a talk before the Medical Round Table of Chicago, Dec. 9, 1941.

diameter. These are *not* cysts. A normal corpus luteum is the size of a cherry, while a cyst of this structure may be as large as a walnut.

If a woman's menstruation is normal, any cystic growth she may have is a *cystoma*.

Diagnostic Points

A tumor of any type of connective tissue is a *fibroma*, and has few blood vessels. On palpation it is as hard as wood or stone. It does not become cystic, but grows harder with time. Menstruation is normal (*endocrine status*).

Tricks: A fibroma irritates the peritoneum and causes *ascites*, which is clear, not turbid as in carcinoma. At operation, the peritoneum is smooth and glistening.

In *fibroma of the ovary*, *hydrothorax* may develop, due to nerve reflexes in the serous cavities (*Meigs' phenomenon*).

A *granulosa-cell tumor* arises from a tissue that produces *folliculin*, so the *endocrine symptoms* are marked. Such tumors are *highly vascular* and readily degenerate to form cysts that may grow to the size of a man's head. Parts of the tumor may be hard and other parts soft.

Differential symptoms: Such tumors may occur (1) before puberty; (2) after puberty; (3) before the menopause; or (4) after the menopause, with the following results:

1. *Precocious puberty* (not menstruation). There is no need to make a hormone test; palpation through the rectum will disclose the tumor.

2. *Amenorrhea* is present, although the young woman is not pregnant. Palpation will reveal a moderately large tumor.

3 and 4. *Uterine spotting* occurs, so that the patient often says she is "menstruating." The uterus is large and succulent (not small and fibrotic), with an ovarian tumor the size of a fist alongside it.

A *xanthofibroma* is a combination of a fibroma and a granulosa-cell tumor.

Dermoids and *teratomas* contain tissues never found in a normal ovary.

Palpation reveals a unilateral, soft, cystic tumor which, in 98 percent of the cases, is not larger than a fist.

There is no *endocrine disturbance* (menstruation is normal).

Tricks: Dermoids are found after puberty and after pregnancy. When tumors are found during pregnancy, 50 percent are dermoids. X-Ray study will show bone fragments or teeth in 60 percent of these cases.

Put the patient on her back for half an hour, and then examine her. All normal organs are heavier than water or of the same specific gravity; but dermoids contain fat, and so will float up in front of the uterus.

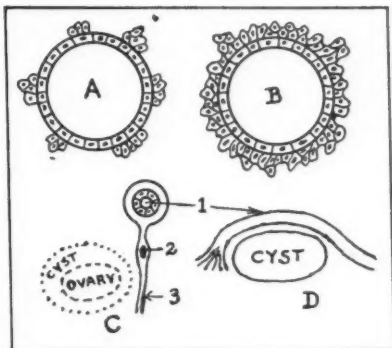


Fig. 2: (A & B) Diagrams of external polyps; (C & D) diagrams of parovarian cyst and structures involved: (1) Fallopian tube; (2) parovarium; (3) broad ligament. Dotted lines locate the ovary and possible ovarian cyst.

If a *cystoma* is papillomatous, and the growth is inside (see Fig. 1), a pathologist must decide whether or not it is malignant; if outside, and *part of the surface is bare* (see A, Fig. 2) it is *always benign*; if the papillomas are all over the outside (see B, Fig., 2), a slide must be made, though only 30 percent of such tumors are malignant; if attached to the peritoneum, it is *always malignant*.

A *parovarian cyst* has no connection with the ovary, but grows from fetal remnants. The parovarium is in the broad ligament (see C, Fig. 2), so when it develops a new growth, the fallopian tube is stretched over it (see D, Fig. 2), and is not otherwise interfered with.

Work for Young Men

If I were twenty-one, I would try to get work in a machine shop. If that failed, I would try for a job in a filling station, or as apprentice to an electrician or a plumber. In short, I would seek to work with my hands, even if I were planning to be a preacher, a doctor, or a lawyer.—WILLIAM S. KNUDSEN, President, General Motors Corp., in Think.

The Sex Problem of the Army*

By HARRY BENJAMIN, M.D., New York City

Clear and direct thinking is rather rare, especially in these days of emotional pressure. Dr. Benjamin contributes a sample of it, applied to a pertinent and pressing problem.

IT IS incumbent upon the medical profession to give thought to the sex problem in the Army, as it concerns the control of venereal diseases and the age-old issue of prostitution. The opinion of the physician, based on knowledge of the medical and psychological facts involved, would be more valid than that of laymen, who now busy themselves with finding a solution. The problem is not only complex and important, but also very timely, because it involves so trenchantly the morale of the individual soldier.

The venereal diseases are in no way peculiar, from a medical standpoint. Like all other diseases, they offer a problem in health, sanitation, and personal hygiene, for the solution of which medical science fortunately has the knowledge, the methods, and the means. In spite of great progress in recent years, we are still making the mistake of setting these diseases in a special category with a moral—or rather immoral—implication. Instead of attacking them scientifically, we conduct anti-vice crusades.¹

A high army officer, with wide experience in health service under war conditions, recently said to me, when we discussed the sex problem in the Army: "Individually and privately we may be honest in sexual matters, but collectively and publicly we are hypocrites."

In July 1941, Congress passed the so-called May Act (named after Congressman Andrew J. May), which forbids prostitution in the environment of Army camps and makes it obligatory for the military authorities to enforce the Act by searching out and repressing prostitution. The reason officially advanced for these efforts is the danger of venereal disease, and no other reason is mentioned.

Who Is a "Prostitute"?

Several questions immediately arise: Can prostitution really be repressed effectively? Is prostitution actually the

principal source of venereal disease? Who is a prostitute—only the girl who requests money for allowing sex relations; or also the girl who complies for occasional presents or for the fun of it? Can the girl be a prostitute who works at a job? Can prostitution be an avocation, or does it have to be a vocation—an exclusive occupation (for instance in a "house") in order to fall under the official ban?

Since there are no uniform answers to these questions, the statistics dealing with the sources of infections have only a limited value. There are statistics that show a relative safety of the "professional prostitute," as compared with the "clandestine" who has a job, and with the "amateur," who merely wants her pleasure.

In the November, 1941, issue of the official *Venereal Disease Information Bulletin*, issued by the U. S. Public Health Service, we read: "A very small proportion of infections in the Army were due to professional prostitutes (6 percent); 80 percent were due to amateurs; and a surprising proportion of 14 percent were marital in origin. Even in country districts, the 'vicious amateur' forms a dangerous focus of disease and remains impervious in reason and education."

In the same publication for December, 1941, the Surgeon General of the Navy says: "A careful supervision by the police of Honolulu, over authorized houses of prostitution, produced a marked decrease in rate of infections."

In the *American Journal of Public Health*, for September, 1941, appears a report regarding the source of infections of 120 soldiers: "63 attributed their infections to prostitutes employed in 'honky-tonks,' while only 15 (12 percent) named inmates of recognized houses of prostitution."

There are other statistics and claims² to show that the principal source of venereal infections is "commercialized prostitution." The main reason for the conflicting data simply lies in the definition of the prostitute. Any statistics based on the professionals plus the clandestines (who may work as hostesses, waitresses, etc.), are bound to be different from those dealing strictly with the professional prostitute alone, who is often under some form of control. The former would show a much higher rate of infection than the latter.

Those who take for granted the idea that commercialized prostitution is the

*We feel that our readers are entitled to a rational statement of another view of a vastly important and controversial subject, to help them in forming an unbiased opinion.—Ed.

principal source of infection, unfortunately ignore the other statistics.

A recent statement of the problem is again contained in the *Venereal Disease Information Bulletin*.³ It ascribes approximately half (40 to 60 percent) of the infections in the Armed Forces to "an organized system" of prostitution (naturally not under official supervision) and the other half to "casual" or "home" contacts. The latter it would be impossible to control. For the former (the organized system), control is conceivable, the results naturally depending upon the efficiency of such control. The author says that, in a controlled group of prostitutes, infections may be reduced to "unprecedented low levels," especially if an essential part of the control is enforcement of prophylaxis. But, he continues, "Such control cannot be carried out effectively under a military cantonment life and leave . . ." And so, it is concluded, vigorous repression of prostitution must be recommended.[†]

This is strange logic. If we assume for the moment that repression is possible and successful, the individual soldier would be compelled to seek a release for his sexual tension among definitely uncontrollable, casual "pick-ups," non-professional prostitutes, amateurs, and "good girls." From a possibly and partly safe group of girls, he is driven to a definitely unsafe and more dangerous group. The young man is not likely to be forced into continence, at least not often.

Continence

It is occasionally stated that the best protection against venereal disease is to abstain from sexual contacts. True enough! Just as true as that the best way to avoid automobile accidents would be to abolish the use of the automobile.

"The bright shield of continence" has recently been recommended by a popular hero in the world of sports.⁴ His advice is well intentioned and may sound logical to some people, such as those who are happily married, those with an underdeveloped libido, certain sex perverts, and the senile. But to the young soldier, with normal instincts, it hardly holds any attraction. He feels, only too often, that he has little to look forward to in the Army. To take a vital pleasure (perhaps a physical necessity) away from him is poor psychology, to say the least. For him, the "bright shield of

continence" would soon become a gloomy burden of repression.

A happy soldier is still the best soldier. Dissatisfaction never enhances fighting qualities. "Wine, women, and song" are still the most potent factors in the life of most healthy young men. It is no more than realistic and wise to admit this factor. Its denial merely shows a visionary and impractical viewpoint, with dangerous consequences if such a viewpoint is enforced. The prohibition experiment was a classic example.

Suppression of "Vice"

But a really successful repression of prostitution is not claimed. In civilian life, the attempt is admittedly futile. The individual prostitutes are merely hounded from one place to the other—a mode of living which cannot possibly be conducive to personal hygiene. When girls have to "dodge the cops," they are less likely to dodge the gonococci and spirochetes. Just as prohibition ruined the quality of liquor, repressive laws are likely to create more diseased prostitutes.

The dictum, however, that prostitution spreads venereal disease and must therefore be suppressed, is proclaimed so often, and with such dictatorial certainty, that its "truth" is hardly ever questioned. In this way a mere assumption is, by sufficient repetition, gradually accepted to be a fact, especially if such "fact" caters to our prejudices and emotional likes and dislikes. The official attitude of the United States shares the prevalent opinion and demands the suppression of "vice" for the protection of our men in uniform.

For the serious student who is interested in solving the problem strictly scientifically and objectively, and who frees himself from common emotional reactions (not always easy), it is perfectly plain that the official attitude is neither logical nor effective. How then can it be explained that such an attitude nevertheless persists? The Army officer who was quoted in an early paragraph has given the answer: there is no doubt that the majority of experienced medical men, as well as officers in the Army and Navy, individually, hold one view, and, as a body—whether Government Department or Medical Association—they hold another.

Individually and privately, some of these men are in favor of the segregated and supervised "red light district." Others merely advocate an efficient system of prophylaxis, on the part of the men (as every infection in the prostitute, aft-

[†]Those who wish to refresh their minds on the popular view of this subject, will find it ably stated in Dr. Stokes' article, here cited. —Ed.

er all, was received from a man). Others want a combination of both methods. But collectively and officially, no such opinion is voiced. Instead, resolutions for rigorous repression are passed and articles and editorials are written to the same effect. Nobody wants to stand out against the majority opinion, when it comes to such a "ticklish" problem. Whether they are in the Armed Forces or in the Government, whether they are health officers or medical editors, their first concern seems to be to conform and not to invite criticism. Naturally, there are also those on the side of repression who are invincibly ignorant of the true facts involved in this problem. They are the eternal stumbling block to progress.

All these facts can lead to only one conclusion: The principal reason for the demand that prostitution be suppressed is not a medical and scientific one at all; it is much more a moralistic and emotional one. Although repressive laws and policies in regard to prostitution are promulgated and publicized as an *anti-disease program*, they are in fact much more an *anti-vice crusade*.

But recognizing a situation does not necessarily explain it. The explanation lies in two factors: first, in the honest, deep-seated, moral condemnation of sexual promiscuity among our law abiding citizens; and second, in political expediences.

What legislator would be willing to jeopardize his re-election by opposing public sentiment on such a moralistic issue? He would rather invite public favor and votes by sponsoring new and stricter laws of repression. The parents want to see their boys in the Army protected against *temptation*, as well as against venereal disease. They naturally take the official statements regarding prostitution and venereal diseases for granted. They hold the Army responsible for their boys. But, in their honest, innocent, and uninformed minds, *they forget that by trying to protect their boys, they may endanger their daughters.*

The young soldier on leave, with healthy instincts, is quite likely to seduce a "good girl" if there is no "bad girl" around or if one is too difficult to find. The "good girl" is handicapped by her emotional attachment and usually knows little of prevention. She is exposed, not only to infection, but to pregnancy as well, with all the subsequent complications and tragedies. The "bad girl" is usually wise. Her past experience protects her, as well as the boy.

Another reason for the repressive laws (usually not admitted) is the hope that the boy will be compelled to abstain. If he is not tempted by prostitutes, he will forget about sex—such is the wish-dream of the reformers and their followers. But, does he abstain? An Army report³ says that only from 15 to 30 percent do live abstemiously; but no definition of "abstemious" is given. They may abstain from actual sexual contacts, but are they to be considered continent if they indulge in some form of auto-erotism (masturbation)? Of course not. Everybody "does something." Whoever does not, is definitely abnormal—and neurotics are refused in the Army.

Auto-erotism, however, rarely satisfies. It is reversion to an infantile practice and a substitute, at best. The act itself is harmless enough, but it has disadvantages for the future and, for the moment, leaves much healthy desire unfulfilled. Every psychologist knows the harmful consequences of frequent frustration. The price is too often a life-long neurosis. *Morale is thus bound to be lowered—a sequence hardly welcome in the Army, even if it occurs in the defense of morals.*

A smaller number of men—those of a more mature and aggressive type—will accept no substitute for normal sexual contact. They will search for the forbidden fruit, no matter where they find it. The more difficult it is to buy relief from their physiologic urge, the greater is the danger that this urge will occasionally break the bounds of moral restraints, and seduction or outright sex crimes may result. Relatively few of such cases become known.

Then there is a third, and not inconsequential, group of boys who react to the blocking of the normal outlet for their libido by substituting it with an abnormal one. They resort to homosexual practices.⁵ Rarely in the camp itself, where there is not enough privacy, but outside, where otherwise they might have found a girl. This danger is readily admitted, but the logical consequence is not drawn.

Unfortunately, in some of these boys, especially if they are so inclined through their psycho-sexual constitution (bisexuality), their homosexual component may become fixed and they never revert to normal. It is almost like sex life in prison, where homosexuals so often originate,⁶ only the iron bars are replaced by bars of morality.

It is apparent, from the foregoing, that the Army has a sex problem on its

hands. A solution that is scientific and effective, but at the same time in accord with public sentiment and political self-interest, is extremely difficult to find.

Summary and Suggestions

In summation, it seems that the dangers resulting from present policies increase as the latter are put into practice more or less effectively. Again and again attention should be called to these possible dangers: Morale is likely to be lowered when it conflicts with morals; the protection of sons possibly endangers daughters; measures to guard the soldier's physical health may jeopardize his mental and nervous balance; army life may actually help to produce chronic masturbators, homosexuals, neurotics, and even sex criminals; furthermore—and most important—venereal diseases are not successfully checked under present official methods. One must wonder, indeed, whether this is not another case of the cure (repression) being worse than the disease (prostitution).

The principles of a solution are contained in the previous discussion. I certainly do not claim to know all the answers, but I feel certain that the following recommendations are justified:

First and foremost: renewed reflection and re-examination of the facts involved (decidedly too little honest and courageous thought is given to the entire problem, "Sex as Service" being a rare example of such thought); a strictly scientific approach, instead of an emotional-political compromise; a real anti-disease campaign, instead of an an-

ti-vice crusade; efficient personal prophylaxis, pointing particularly to the danger of alcohol in connection with sex, and to early treatment (thanks to the new sulfa drugs, gonorrhea treatment is definitely shorter and more effective now than in former years); and, finally, finding and eliminating the sources of infection.

Details must be left to be worked out by men and women with experience, tolerance, a scientific viewpoint, and a capacity for logical thinking. Prejudices, emotional reactions, and especially "politics" must be disregarded when it comes to important wartime measures. And experiences gained in the Army may become invaluable when a future, saner, solution of the venereal disease-prostitution problem will be attempted for civilian life.

References

1. Harding, T. S.: The Endless War on Vice. *Med. Record*, April, 1938.
 2. Snow, William F., M.D.: No War Boom in Venereal Disease. *Survey Graphic* (for the Am. Soc. Hygiene Assn.) Publ. No. A-430.
 3. Stokes, J. H., M.D.: Ven. Dis. Inf. *Bulletin*, Vol. 23, No. 5, May, 1942.
 4. Tunney, Gene, in *Readers Digest*, August, 1942.
 5. Benjamin, H., M.D.: Prostitution and Venereal Disease. *Med. Rev. of Reviews*, Sept., 1935, p. 9.
- (This article was reprinted in an enlarged and revised edition 1939, a copy of which can be procured by writing to Dr. Harry Benjamin, 728 Park Avenue, New York City).
6. Fishman, Joseph F.: "Sex in Prison." National Library Press, 1934.
 7. Lake, George B.: Sex as Service. *Med. J. & Rec.*, Jan. 6, 1932.

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Notes From the Mississippi Valley Medical Society Meeting

Reported by GEORGE B. LAKE, M.D., Waukegan, Ill.

THE eighth annual meeting of the Mississippi Valley Medical Society was held at Quincy Ill., September 30 and October 1 and 2, and while the attendance was smaller than usual (which was to be expected), those who were there were enthusiastic, the program was good, and the weather was delightful, so it was a pleasant and profitable occasion.

The M. V. Medical Editors' Association held its second annual meeting and dinner on Wednesday evening, president Clyde P. Dyer, M.D., of St. Louis, in the chair, with a good attendance and an excellent program. At the business meet-

ing, which followed the program, Dr. James Dunn, of Davenport, Ia., was installed as president, and Dr. A. F. Harrington, of Cedar Rapids, Ia., was chosen as president-elect. The other officers remain as before. All Middle-Western physicians who are interested in medical journalism or writing should join this organization. Those who are interested can get details from the Secretary, Dr. Harold Swanberg, W.C.U. Bldg., Quincy, Illinois.

None of the essays submitted in the annual contest was considered worthy to receive the award, so the prize was not given this year.

Only one of the scientific exhibits was judged worthy of an award, so the silver medal and certificate went to Dr. A. A. Mertz, of Decatur, Ill., for his clever and practical method of treating intracapsular fractures of the neck of the femur (See Fig. 1.)



Fig. 1: The Mertz pantaloan cast in place

Nothing strictly new was shown in the commercial exhibit, but one item, not often shown at meetings like this, seems worthy of mention because of its simplicity and practicality as a diagnostic aid. This was the *Litmasin pH Indicators*, offered by Medco Products, of Park Ridge, Ill., which cover all pH levels in the clinical range (4.5 to 7.6) with sufficient accuracy for diagnostic purposes, and can be used in a wide variety of conditions with a minimum expenditure of time and effort — and that means something these days.

An innovation this year was a series of sports events (archery, bowling, golf, horse shoes, and skeet and trap shooting), on Thursday afternoon, each member having a choice of the sport in which he would participate. Tables were available at the various country clubs for those who preferred to play cards.

Here follow abstracts of some of the clinical papers and instruction courses that seemed to me to be of the greatest general interest and importance.

CELLULAR METABOLISM AND ALLERGY

By Norman M. Smith, M.D.,
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In 1940, the English investigators, Evans, Bodman, and Maisin, published the statement: "A departure from normal in the chemistry of cellular metabolism, involving the absence of certain catalysts of coenzyme activity, is the primary cause of allergic manifestations."

Enough work has been done to show that the total absence of such coenzymes, even though they are normally present

in the body in extremely minute amounts, may produce widespread physiologic changes.

Metabolic processes take place in the cells, and when these processes are incomplete because of deficiency of certain catalysts that determine the oxidation-reduction activities in the body, these cells will react abnormally to certain physiologic stimuli.

On the basis of these accepted facts, I determined that an almost infinitesimally small dose of ethylene disulfonate (*Allergosil*: Spicer-Gerhart Co.) will protect 80 percent of guinea pigs against shock doses of egg albumin that were fatal to all of the unprotected controls.

Before beginning clinical tests, I visited Dr. Clifford Bartlett, of Pasadena, Calif., and found that 60 percent of more than 300 patients with various allergic manifestations had been made entirely symptom-free by an average of two injections of *Allergosil*, while another 26 percent had been markedly improved.

In my own series of more than 30 cases, the results have been even more favorable than those of Dr. Bartlett, and in several the relief has been dramatic.

A man, age 23, had asthma and eczema from the age of two years, lost much time from school, and could not hold a job because he was sick so often. Many forms of treatment had done no good. He was given one injection of *Allergosil* on December 13, 1941; had no asthma or eczema after January 7, 1942; on March 13 was accepted for army service; and is now smoking, eating the ration like any other soldier, and feeling better than he has for years.

A young woman, age 21, had asthma from age 4 and an allergic family history on both sides; lost much time from school; was allergic to many things; and had had several attacks so severe that her life was despaired of. She had two injections of *Allergosil*, and after three months was eating anything she chose and leading the normal life of a healthy girl.

A physician, age 54, had his right epididymis removed in 1913, because of tuberculosis, which also led to the removal of his left epididymis and vas. In 1914, and his left kidney in 1928. He had severe, multiple sinusitis; headaches; various gastrointestinal disturbances; severe fatigue; muscle spasms in his legs; *Giardia lamblia* infestation; blood pressure, 220/98; urine, 2-plus albumen, hyaline casts, red and white blood cells. His diet was sharply and

rigidly restricted to enable him to get about at all.

He was given 5 injections of Allergosil and responded very slowly. His sinuses, gastrointestinal disorders, giardia infestation, and headaches cleared up; his blood pressure came down to 162/93 and his urinary albumin to 1-plus; and he is eating foods to which he has been allergic for years.

I feel that this drug bids fair to prove an immensely important addition to our therapeutic armamentarium.

CLINICAL ENDOCRINOLOGY

By James H. Hutton, M.D., F.A.C.P.,
Chicago, Ill.

Now that the younger men, who have been doing most in endocrinology, are going into the armed services, the older ones who will have to take over the work must learn how to diagnose and treat the commoner endocrinopathies. In most cases the diagnosis can be made from a carefully-taken history, a thorough physical examination, and a therapeutic test or two, without any elaborate laboratory work.

One of the commonest of such conditions (though it is frequently overlooked or untreated) is *Fröelich's syndrome*. For practical purposes, every fat child with hypoplastic genitals may be considered and treated as a case of this type, and the earlier the treatment is begun, the better.

For children of 10 years or older (in younger ones the dose should be proportionately smaller), start with one grain of U.S.P. thyroid a day. After one week, if there is no increase in the pulse rate, tremor, nervousness, or insomnia, increase the dose $\frac{1}{4}$ grain a day. Continue with similar increases, at weekly intervals, until one of the symptoms mentioned appears, and then reduce the dose 25 percent and continue it indefinitely.

Posterior pituitary extract is also needed. To find the proper dose, inject 3 minims of obstetric pituitrin, and keep the patient in the office for an hour, to see if it causes nausea, intestinal cramps, or other unpleasant symptoms. If not, inject 5 minims, two days later. If that is well tolerated, a similar dose should be given two or three times a week. If not, the largest dose that is tolerated should be given at the same intervals.

Children of average height or taller should be given 50 units or more of gonadotropic hormone (A.P.L., Antuitrin-S, Follutein, etc.), at the same inter-

vals as, and in the same syringe with, the posterior lobe extract. If less than average height, give instead, in the same way, from 5 to 7 minims of *whole anterior lobe extract*. The best preparation — Anterior lobe extract — is now off the market for some reason, but can be obtained from Parke, Davis and Co. by ordering direct from the home office, in quantities of 100 or more ampules at a time.

If these injections are given three times a week at the start, they should be reduced to twice a week after 60 days; once a week after 60 days more; and from then on the intervals should be gradually lengthened and the patient kept under observation until the height, weight, and genitalia are normal. If the symptoms recur after treatment is stopped, it should be resumed. Examine the urine of these patients for sugar occasionally.

The *menopause* cannot be prevented nor cured, but its discomforts can be relieved by moderate doses of estrogens (Progynon, Amniotin, Theelin, etc.), determined individually, as to size and frequency, for each patient on the basis of clinical relief of symptoms. Start with injections of 1,000 or 2,000 international units (I.U.) once or twice a week, and then increase or decrease the dose, as required. Select one product; learn exactly how to use it; and stick to it.

Several products (Progynon-DH, Emmenin, Theelol, etc.) are effective by mouth. Stilbestrol is now popular, but I am not enthusiastic about it. Premarin (Ayerst) looks promising, so far.

Another useful procedure, which will not replace the estrogens but will frequently reduce the dose needed, is small doses of x-rays applied to the pituitary and adrenals (120 Kv.; 3 ma.; 50 cm. skin-target distance; 2 mm. aluminum filter; 10 by 10 cm. portal for each side of the pituitary and 15 by 15 cm. common portal for the adrenals), giving 50 r to each area treated. Give no more frequently than once a month.

Pituitary deficiency is common, causes much discomfort, and is frequently shown by a low basal metabolic rate (B.M.R.) in a patient who has no other signs of hypothyroidism (dry skin and hair; brittle nails; sensitive to cold but not to heat; etc.). Hypothyroid patients feel better under thyroid treatment; hypopituitary patients feel worse, but are promptly better after 0.5 cc. of anterior pituitary extract. Thyroid and pituitary deficiency often coexist, and adrenal deficiency is also common.

Hypopituitary patients are treated with injections of 0.5 cc. of anterior pituitary extract two or three times a week, adding appropriate doses of pituitrin (as in Fröelich's syndrome) if they are also fat. It is worth while to try this treatment on all "chronic complainers." The results are sometimes astonishing.

INSULIN TREATMENT IN DIABETES

By Russell M. Wilder, M.D., F.A.C.P.,
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Univ. of Minn.

One dose of protamine-zinc insulin will keep the blood sugar down for 48 hours, sometimes even to the point of hypoglycemia, and frequently fails to give warning of an overdose, so the patient receiving it must be watched until the proper dose is established.

In severe cases, however, it will not always keep the sugar down through the day and, in some cases, "regular" insulin (which acts more promptly and briefly) must be injected with it, in the same syringe, in proportions of 1:1, 1:2, or 1:3, as conditions require. The regular insulin should be taken into the syringe first, and the injection should be carefully made *under*, not into, the skin.

Give the first dose half an hour before breakfast; and the dose should be adjusted day by day, on the basis of daily urine tests by the patient, in steps of 4 units each, when increasing, and 2 units when decreasing, but the protamine-zinc insulin should never go below 6 units.

If the urine test, at night, shows a faint trace of sugar, the dose should not be changed; if more than that, the dose should be increased one step a day until there is only a faint trace of sugar; if less, it should be decreased, in the same way. In emergencies (fever, after operation, etc.), the regular insulin should be increased, but not the protamine-zinc, and the patient may need several doses a day.

Neuritis may result from hypoglycemia produced by overdoses of insulin, and in most cases less of this preparation is needed than many physicians suppose. The optimum sugar in the urine of a diabetic patient is not zero, but plus-2.

CANCER OF THE PROSTATE

By Grayson Carroll, M.D., F.A.C.S.,
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Cancer of the prostate, in men past 50 years, is common (from 5 to 10 percent)

and frequently shows no overt symptoms until it is far advanced. Bleeding is rare in cancer, but common in prostatic hypertrophy.

The usual early symptoms are sciatic pain, loss of weight, and anemia. Digital palpation, by rectum, is the only necessary diagnostic procedure, and every man past 50 should have routine prostatic examinations, at periodic intervals, by a man who has had training and experience.

All medical students are trained in the use of the stethoscope from the beginning of their clinical studies, and most physicians use this instrument many times daily, but pitifully few of them ever feel in a patient's rectum. We must know what to do for all of our patients and when to do it, and then do all we know.

The cancerous prostate is stony hard (not just moderately hard) and generally more or less nodular. The history, if well taken, may help in making a diagnosis, which may sometimes, but not always, be proved by transurethral resection and a microscopic examination. After the cancer has broken through the capsule of the gland there is an increase of the acid phosphatase in the blood. There are no false positives with this test, but many false negatives.

Because cancer of the prostate seems to be caused by an increase of the androgens in the blood, in relation to the quantity of estrogens, the most successful treatment, today, is castration. After this operation, 70 percent of the patients improve; the primary growth and the metastases regress. No claim for cure by this method is made, at present.

In the 30 percent who do not improve after castration, the excess of androgens may be coming from the adrenals or other glands, so we give stilbestrol, in appropriate doses, to restore the balance. This drug may well be used, with judgment, in all cases, and will sometimes cause improvement without the radical operation.

BENZEDRINE IN OBESITY

By Emery Grimm, M.D., Chicago, Ill.
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Purely alimentary obesity (a food intake that exceeds the energy expenditure) is much more common than the endocrine type; and dietary restrictions are necessary in all cases of this condition.

Fat people are often nervous; and the

more nervous they are, the more they eat.

Benzedrine Sulfate causes euphoria, decreases appetite, and increases activity. Give from 5 to 10 mg. a day, or more, as required. This, with a diet of from 1,200 to 1,500 calories a day, can reduce a patient's weight 2 pounds a week. Diet alone is best, *theoretically*, but few will follow a diet strictly. Benzedrine helps the weak ones. Two hundred (200) extra calories a day will add 24 pounds a year to a patient's weight.

Benzedrine increases alertness and efficiency. For 45 minutes after a dose, there is *hypomotility* of the gastrointestinal system; later, *hypermotility*. The effect on blood pressure (which should be tested two or three times before and after the medication) is individual; more commonly it is increased, so do not give this drug to persons with hypertension or a labile blood pressure. The basal metabolic rate (B.M.R.) will rise about 10 points after a dose of 15 mg. of Benzedrine Sulfate.

Technic of Medication

Give the patient a complete examination, including B.M.R. and blood cholesterol tests. Take the blood pressure one or two hours after a small dose (2½ mg.) of the drug. Increase the doses gradually, under observation, until the patient has anorexia and feels better, and then fix the minimum dose — usually from 10 to 15 mg. in the morning and at noon (*not in the evening*) — which he is to take until he is reeducated. Follow up the case religiously.

INJURIES TO THE FACE

By Gordon B. New, M.D., D.D.S.,
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Under war conditions, there are four stages in the treatment of face wounds:

1. First aid.
2. Transportation.
3. At the field hospital.
4. At the base hospital.

For first aid, relieve pain with morphine; control bleeding; keep the airway open; keep the tongue forward (possibly with a silk ligature passed through it and tied, with long ends); remove loose fragments with the fingers; and keep the skin in place as well as possible, with adhesive plaster, a bandage, or a handkerchief.

For transportation, pass a catheter or tube through the nose, to keep the airway open, and place the patient on his side or belly.

At the field hospital, remove all dirt from the wound, under anesthesia, by scrubbing with a soft brush and soap and water (any remaining particles will cause a tattoo); use sulfanilamide locally; and fasten the skin in place with adhesive plaster.

If the nose is fractured, give the patient Pentothal sodium; push the bones

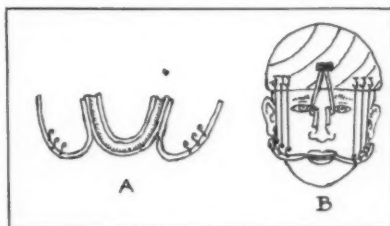


Fig. 2: Rough sketch showing the principles of fracture apparatus attached to head cast, which may include a metal band to which various appliances are fastened. (A) Splint for upper jaw made from a cast of lower jaw; (B) Splint in place, with traction and a nose splint indicated.

into place with the fingers; apply an aluminum splint; and strap with adhesive. Ship the patient to a base hospital as soon as possible. It may be necessary to perform tracheotomy and ligate the carotid artery.

At the base hospital (as early as possible), in all cases of fractures about the face, and especially when the nose is flat, modern external apparatus, applied with a head cast (See Fig. 2), should be put on as soon as possible and worn for at least a week or ten days. A dentist will be needed to wire the teeth in place. If there is danger of a hematoma, use a Penrose drain.

Final treatment will be given from 3 to 6 months later, where expert plastic surgeons and all needed appliances are available. The amount of deformity will be estimated by making casts; cartilage to be transplanted should be heated and then cooled, before using; if there is a tendency to keloid, radium may be applied before operation.

CLINICAL FACTORS IN GIVING DIGITALIS

By Graham Asher, M.D. F.A.C.P.,
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Asst. Prof. of Medicine, Univ. of Kans.

The general factors that operate in the use of digitalis are:

1. The condition of the patient.
2. The somatic changes in the patient.
3. The associated diseases present.

4. The various preparations of the drug.
 5. Other therapeutic measures used.
- The specific factors in digitalis therapy are:

1. The character of the preparation selected.
2. The concentration of the drug in the coronary vessels.
3. The duration of perfusion.
4. The relation of the weight of the heart muscle to that of the body muscles.
5. The presence and degree of liver disease.

One must know what cat unit is used in assaying the various preparations, and must remember that congestive heart failure cripples the liver more or less and also uses up oxygen and the phospho-creatine-protein fractions. Aortic re-

gurgitation reduces the perfusion pressure, so that the drug does not reach the coronaries; capillary disease may keep it from the heart muscle.

The crystalloid, *ouabaine*, acts most rapidly and can be given intravenously, if carefully controlled, thus reaching the heart most directly and in the highest concentration. When given by mouth its action is uncertain, as it must go through the congested liver and may be released suddenly when compensation is restored.

If a patient has been taking quinidine, he will need more digitalis, as the two drugs are antagonistic. The electrocardiogram will estimate the degree of digitalization.

Digitalis, in toxic doses, never slows the heart, but makes it beat faster and may cause auricular fibrillation.

Insects, Ticks, and Worms In Human Medicine*

Part II

By GEO. A. SKINNER, M.D., F.A.C.S., Berkeley, Calif.
Col. Med. Corps, U.S. Army (Ret.)

Ticks

(Class, *Arachnida*; families, *Ixodidae* and *Argasidae*; 8 legs)

TICKS, or wood ticks (See Fig. 5), are not just another annoyance, as most of us formerly thought, but are a major threat to human existence on this arthropod-infested world. However, insects lived here for millions of years before man was ever thought of, and have a prior claim to it, if they can maintain that right. It always has been and always will be a continuous war for survival.

Tick eggs are deposited in great numbers on the ground, and hatch in the early spring. Millions of tiny ticks (seed ticks), having only six legs at this time, start life by crawling up a blade of grass or other low growth and waiting for a small rodent to pass. To this animal they quickly attach themselves and commence to feed. They usually drop to the ground after feeding, and moult. The tiny ticks soon develop two more legs and commence to grow rapidly. They climb higher this time and usually find larger animals. This keeps up until four or five moults (instars) have passed, when development is complete, mating takes place, the male disappears, and the female drops to the ground, lays her eggs (often by thousands), and also

dies. So the process is repeated. Some ticks develop fully on one animal.

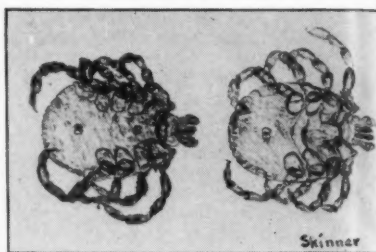


Fig. 5: Rocky Mountain Spotted Fever Tick (*Dermacentor andersonii*). Right figure shows the dorsal and the left the ventral aspect. Note the eight legs.

Ticks may live for months without food; some, in laboratories, have been kept for more than two years unfed. Their life span depends largely upon the temperature and the presence of food. They exist almost everywhere, in woodlands and in hilly and mountainous regions, in the valleys and gorges. The "evil spirits" of mountain regions, which dwell in deep wooded valleys, causing death to all who enter, are usually infected ticks, which spread disease by their bite. They not only carry

*This is the final installment of a two-part article.

infection, but transmit it through their eggs, to the young for several generations at least. There are many varieties of ticks, more or less specific to certain animals, but when hungry, almost any of them will bite anything that will furnish them blood. Both sexes bite.

Their control is difficult. Wooded areas cleared of undergrowth, land closely grazed by sheep, or plowed, do much to prevent their breeding. Camps should be kept away from undergrowth, especially in the spring and early summer. Careful search of the body for ticks, several times a day, when exposed to their bites, will do much to remove harmful effects. They should be carefully and gently removed, by steady traction, so that the head will not be broken off and infection follow. Many substances, such as the petroleum products, chloroform, hot match ends, etc., are reputed to relax them quickly. Most men accustomed to the open have their own methods. The sprays, etc., that kill most insects, usually only stun ticks, and they quickly recover.

Ticks transmit many diseases, and the list is constantly growing. Rocky Mountain spotted fever, tularemia, relapsing fever, to human beings, and cattle fever and other diseases to animals, are among the most important. They are dangerous enemies, especially when their presence is not suspected, as is often the case in occupying shacks in the mountains on winter hunting trips etc., after the buildings have been closed for the winter. When fires are lighted, hungry ticks, brought to such cabins by squirrels, which seek them for protection and nesting, become active in the warmth, and many an unsuspecting hunter or winter sportsman has carried away relapsing fever from such a vacation.

Lice

The part played by lice in transmitting typhus fever, must again be emphasized, because recent studies show that it is apparent that a large part of our profession, even many health officers, do not realize the immediate and pressing problem of lice in war times.

In practically every city jail and hospital, lice will be found at almost any time, if they are sought, and every louse is a potential carrier of typhus. Our troops may become infected, and the army seriously hampered by an outbreak of this disease. For slight infractions of the law, soldiers may be lodged temporarily in a city jail, become louse infested, and carry lice back to their

organizations, spreading the infestation widely before it is recognized.

Every city health department should be prepared to "delouse" patients and inmates of hospitals and jails, for wherever there is a "flop house" and a vagrant population there will be plenty of lice.

Fleas

Fleas must be considered in connection with bubonic plague and the milder or "endemic" form of typhus; and rats, as transporters of both ticks and fleas, and both diseases, must be considered among our destructive parasites.

A persistent rat-destruction campaign should be a part of all health efforts, for most rodents may convey plague, and a large infested rodent population (including ground squirrels, wild rats, mice, gophers, and rabbits) now exists in many parts of the United States, which may be the source of a plague epidemic at any time.

Time does not permit the consideration of bedbugs, cockroaches, mites, etc., but they all bear on the problem of parasites dangerous to human life and health.

Spiders

Spiders are mostly beneficial and, unless known to be dangerous, should be spared, as they are among our greatest protectors against insects. The only one that we are likely to encounter which is really dangerous, is the "black widow" (*Lactrodectus mactans*), she with the bright red "hour glass" markings on the abdomen (see Fig. 6). These spiders will run rather than fight, but if surprised will bite, and often the bite is serious. Depending on the amount of poison in the sac at the time, it may be painful to fatal, especially in children.

These spiders normally inhabit animal burrows, quiet wooded localities, tree holes, and the like, but civilization has largely built them out of their normal habitat, so they have entered those of men — outhouses, garages, chicken coops, barns, privies, etc.—and it is in the dark corners of such places that most bites take place.

If a poisonous spider bite is suspected (they are most frequent in warm weather), the patient should at once be taken to a hospital for treatment, if possible. Pain is usually immediate, in the locality bitten, increasing in intensity for several hours, then slowly receding. Muscular spasms, especially of the abdominal muscles, are very common, hence the frequent mistaken diagnosis of appendicitis; but local tenderness rarely exists. Severe pains, in many muscles,

may be present, and profuse sweating is common. Shock may indicate intravenous medication. Usually morphine

see, are from beef or pork, and are mostly due to undercooked meat. This is also true of the smaller pork worms

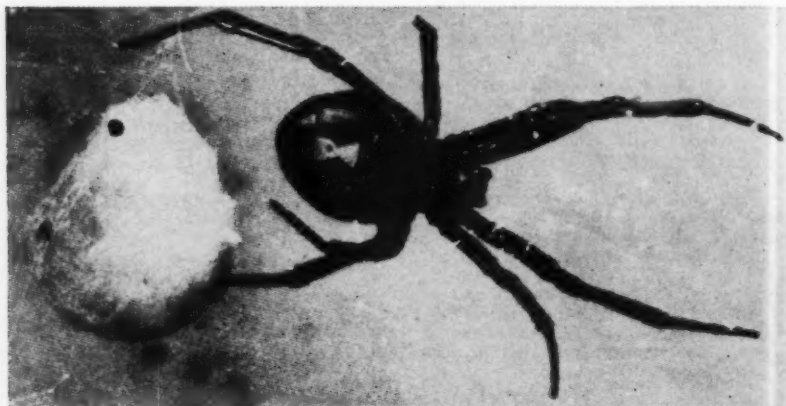


Fig. 6: Black Widow Spider (*Latrodectus mactans*), mature female with egg sac. The bright-red hour-glass marking shows well. (From Herms' "Entomology," p. 513, by permission of the author.)

will control the pain, and recovery follows in two or three days. Calcium gluconate, 10 cc. of a 10 percent solution, intravenously in adults, intramuscularly in children, is reported to be very prompt and effective in giving relief. (Herms, "Med. Entomol.," page 525.)

Worms

The subject of helminths is a very large one in itself, and can only be sketched in a short article.

Round worms (*Ascaris lumbricoides*) are an exceedingly common infestation in man, especially in warmer countries, where practically whole populations are infested, unless recent measures of disinfection have been used. Usually unnoticed by native populations in the tropics, at times serious damage is done by the migratory habits of these worms, and I have seen intestinal obstruction caused by worm masses, serious enough to require surgical removal. They may penetrate the bile ducts and cause obstructive jaundice. If numerous enough, they may cause anemia of marked degree. The eggs are produced in untold millions, and unless sanitation is good, these eggs are scattered promiscuously, with fecal deposits, and infest the soil everywhere. Thus contact with the soil, either in work or play, and carrying the eggs to the mouth on hands or on food, continues the cycle indefinitely.

Tape worms, such as we ordinarily

(*Trachina spiralis*), from raw or undercooked pork. The only preventive is sufficient cooking of meat to destroy the encysted worms. Storage at low temperatures destroys many such worms, but there is no certainty of such destruction except thorough cooking. Raw meat and fish (smoked or dried sausage, meat, and fish) are always dangerous, and trachina infestations are numerous, though often in repeated small amounts, and practically symptomless; but trachina has been mistaken for some 40-odd diseases.

Autopsy studies indicate that from 10 to 27 percent of the population showed trachina infestation. Public health instruction in the dangers of raw or undercooked meat products seems to be the only answer. Some improvement has been obtained by cooking garbage fed to hogs. Rats are heavy carriers of these worms, and to a certain extent may transmit them to hogs, which will eat rats whenever they can catch them.

Leeches (Anelid worms) do not enter much into the picture except in the tropics, where our men will encounter them, numerous and disagreeably, in the woods and streams. In some places every shrub and tree seems to be alive with them, and they can even hold on to the edge of a leaf, to swing off on any passing animal, human or other. It is perfectly possible that they may trans-

(Concluded on page 383)

A LIVING FOR THE DOCTOR

THE BUSINESS OF MEDICINE AND THE ART OF LIVING

Annual Health Inventories

EVERY reasonably intelligent automobile owner takes the "old bus" to a garage, at least twice a year, for a thorough check-up and overhaul; but only a ridiculously small proportion of our citizens seem to realize that the much more complicated and delicate machines inside their skins must have comparable attention, if they are to get the maximum service out of them, with minimum repair bills, and they must be sold on this idea.

Of course the Specialist in Family Practice can never (or very rarely) take out a worn part and replace it with a new one, but he is the logical and ideal man to sell the *annual health inventory* to his patients, and to do the job; and if he is not as insistent about it as the garage men are about looking after the cars they sell and keeping them in good working order, he is doing an injustice to his patients and to himself—and is more than a little bit dumb.

When a man (or woman) really understands what this annual (the individual's birthday is an easy time to remember, for both the doctor and the patient) check-up means, he will be glad to pay a reasonable price for it, and if it is competently performed it can be developed into a steady and increasing source of income.

Of course, the doctor, himself, has to be sold on the idea first, to the extent that he will qualify himself to make such examinations intelligently and thoroughly, add a few inexpensive pieces of apparatus that his present armamentarium may (or may not) lack, and work out a system of record keeping and follow-up that will make the plan work smoothly and with certainty. Several

concerns publish ready-made systems that fill the bill admirably.

Here is a tip that any family doctor who is not quite satisfied with his income or with the service he is giving his patients can bet on as a "sure thing."

G. B. L.

The Modern Doctor

When a M.D. reads the reams of stuff written about the doctors of yesterday and today, he scoffs mightily (but usually inwardly). This material is just as dead as many of the men discussed.

The doctor of today is neither the tireless driver of countless miles, the dauntless surgeon of a thousand bloody operations, nor the doddering old family friend and confessor. Rarely does he assume the pose of knowing all.

He is conscientious, studious, aware of the many gaps in his knowledge; he attends as many medical meetings as possible; takes postgraduate courses whenever he can afford them (the old days when the physician was well fixed financially are no longer possible to the present-day practitioner who wishes to buy expensive, new medical instruments and books); and misses patients and income while away learning. He is amazed at older patients' tales of doctors who have attended them and diagnosed all manner of illnesses by taking the pulse and looking at the tongue, whose lofty manner covered a profound and often unrecognized ignorance.

It may be that the war will disrupt or even abolish present trends in medicine; it is certain that many of us will not be on hand to help it along, as all must share dangers together.

There are still ignorant doctors, greedy physicians, careless doctors. The passing

of a medical course does not automatically bestow a well-fitting halo. Yet there is a heart-warming sensation in the knowledge that in no other profession do men give up incomes regularly to study

(which is hard work); do thorough work for persons who cannot realize and thus appreciate it; and write and tell of their discoveries so freely, for the benefit of the other fellow. R. L. G.

Notes and Abstracts

Requirements for the Physician's Office

MANY patients have bacteriophobia. They have read much of the accidental transmission of syphilis and gonorrhea, and are suspicious of the infective potentialities of everything in the physician's treatment room. This feeling is enhanced by the sight of soiled instruments lying around or by any appearance of uncleanness or untidiness in rooms where treatments are carried out.

Enameled iron sinks are cheaper, yet are inferior to porcelain sinks, because of the stain-resistant properties and the ease with which a porcelain sink may be kept clean.

Several small treatment rooms are to be preferred because (1) the patient may need to remain for a time after treatment; (2) one can reach what one needs in a step, if things are conveniently arranged; and (3) one can use the same space more efficiently.

The offices should be as sound-proof as possible. It is impossible to secure an accurate, complete history if waiting patients can hear any remarks.

Buy instruments of stainless steel. They will not rust after being left in the sterilizer, they look brighter and cleaner, and will wear longer.—C. J. UTHOFF, M.D., in *Miss. V. Med. J.*, Sept., 1942.

The Problem of the Unlicensed Motor

IT WAS the first week of 1943, and Doctor Medico was ready for business as usual.

"We haven't got our 1943 license yet," the driver pointed out.

"We'll have it in a few days. Take a chance and take the car out," the doctor ordered, and that afternoon the car was smashed up by a street car.

"Your motorman was negligent, which

was the cause of the accident," the doctor stated.

"We admit that," the street railway agreed.

"And my driver was free from fault."

"We admit that, too."

"Well then, buy me a new car."

"Not so fast, your car has no license for 1943, and that cuts you out of any claim."

"Even when the absence of a license had no connection with the accident?"

"That's what our lawyer tells us."

Now, if the car had been injured in California, Illinois, Kentucky, Pennsylvania, or Vermont, the street railway company would have had to "foot the bill," as the courts have ruled that the mere fact that the injured vehicle was unlicensed did not excuse the negligence of the other party. On the other hand, the courts of Massachusetts and New York have ruled the other way.

M.L.H.

[In response to a large number of requests from our readers, we are happy to publish the first of a new series of brief medico-legal notes by Judge M. L. H. Others will appear from time to time, as space permits.—Ed.]

Cash Discounts

A person can often pay a bill contracted 10 days ago, but after 30 days it becomes an impossibility. Some other cause will have taken the money — a vacation, the cost of repairing a fender, or other bills. It is marvelous how a person feels justified in saying that he cannot pay his bills in cash, but can find the money when he is told that the cash basis is from 10 to 20 percent cheaper to him, because it costs, on an average, that amount for each dollar put on the books.—R. B. DAVIS, M.D., in *South. Med. & Surg.*, Sept., 1942.



THE SEMINAR

Readers are invited to submit problems to the Seminar and take part in the discussions, which should reach this office by the 10th of the month following the appearance of the problem. Send problems and discussions to THE SEMINAR, CLINICAL MEDICINE, Waukegan, Ill.

Problem No. 9 (Diagnostic)

Presented by Drs. Sidney W. Gross and William Ehrlich, New York City
(See CLIN. MED., Oct. 1942, p. 312)

RECAPITULATION: A girl of 9 years fell and struck the back of her head. She was dazed momentarily, but was able to go home, where she had headache and vomited.

A physician found a normal pulse rate (80) and temperature, and no paresis, paralysis, stupor, or pupillary changes, though the child was somewhat sleepy and was put to bed, for rest, at 7 P.M.

At midnight the mother took her to a hospital, because her sleep was deeper than seemed natural. Aside from definite stupor, weakness of the right side, and a pulse rate of 66, she seemed to be normal.

Requirements: State your tentative diagnosis, giving reasons. What further examinations would you have made, and what treatment would you have given?

Discussion by Dr. S. H. Peterson
Hibbing, Minn.

The history of a fall, together with the symptoms presented, indicates a definite brain injury. Whether a skull fracture is present or not is of secondary importance. The deepening coma, decrease in pulse rate, and weakness of the right side indicate hemorrhage in the cranial cavity, with resultant increased intracranial pressure. The story of being dazed seems to be followed by the so-called lucid interval. The diagnosis would seem to be, *middle meningeal hemorrhage on the left side.*

X-Ray studies should not be attempted. Spinal puncture, for diagnostic purposes and for the relief of the cranial pressure, may be done, but is of questionable value and may be harmful. Further diagnostic procedures should consist of a careful neurologic examination, as no mention is made of Babinski's sign, the condition of the reflexes,

or the presence of muscular twitching. Optic disc and ear examinations are necessary. Greatly important is the recording of the pulse rate, blood pressure, respiration, and temperature about every fifteen minutes. Variable pulse, Cheyne-Stokes respiration, and rising temperature are danger signals and indicate failing cranial compensation.

Treatment should consist of absolute quiet and rest in bed; restricted fluid intake; the use of dehydrating solutions, such as 50 percent sucrose or dextrose intravenously; and 50 percent magnesium sulfate, by rectum, may be of value.

Should the patient show the danger signs just stated, together with a dilatation of the pupil on the affected side, immediate subtemporal decompression is indicated, with removal of the clot and ligation of the middle meningeal artery. This should be followed by a long period of rest in bed, and a longer period of frequent observation. Children, as a rule, withstand cranial injuries well.

Discussion by Dr. H. F. Proudlock
Menominee, Wis.

From the very brief history given, the girl has a collection of blood inside the skull, probably encapsulated and located on the inner surface of the dura in the parietal region. *Pachymeningitis hemorrhagica interna* is common in scurvy and also as a result of accidents. Therefore it is necessary to rule out scurvy from a previous history.

A hematoma, compressing the brain, will produce symptoms in direct proportion to its size and dependent upon the location for the focalizing symptoms.

In the case under discussion, the fall seemed insignificant, because consciousness was regained in such a short time. The delayed symptoms were due to a gradual seepage of blood, and as the pressure became greater the girl became drowsy. The headache, vomit-

ing, and bradycardia, with the history of the fall, are suggestive of brain compression. The increasing stupor would suggest that pressure was increasing, and finally the patient lapsed into unconsciousness.

In order to make a final diagnosis, more detailed information is necessary. The x-rays may reveal findings that may reverse the tentative diagnosis.

Some more detailed findings which are necessary are: Signs of choked discs; reaction of the pupils at the time of stupor; rule out cranial nerve involvement.

If the hematoma is in the motor area, the twitchings will be on the side opposite to that of the lesion; paralysis of one or more limbs may be present, depending on the area involved. Was there any tenderness over the parietal region? X-Ray study of the cranium to rule out or demonstrate skull fracture. Was there any sign of fracture at the base of the skull?

A spinal puncture was also called for. If the tentative diagnosis is correct, the spinal fluid may be bloody; or it may be yellow.

Was there any variation of temperature or signs of anoxemia?

Treatment: Elevation of the head; spinal puncture, with removal of some fluid; sedation, for restlessness.

Discussion by W. B. Palmer, M.D., Furman, Ala.

Here we have a history of trauma, followed by delayed coma. The age of the patient and the examination made point to normal conditions of the lungs, heart, abdominal, and pelvic organs. The coma is not characteristic of that following an epileptic seizure. We must decide what condition was produced by the trauma—concussion, contusion, or compression of the brain, with or without fracture of the skull.

Coma is often delayed, even in skull fracture with hemorrhage. Hemiplegia rarely occurs in such a condition, but seemingly there was slight hemiplegia for "there was definite weakness of the right side." Kernig's sign is always present in these cases, but is rare in uremia. The slow pulse leads one to suspect compression of the brain. Several hours or days may elapse after an injury before the coma deepens. The x-rays may shed light on skull fracture.

The effects of *concussion* usually subside in a relatively short time. The treatment consists in bandaging the limbs and using abdominal pressure, if one does not have Crile's pneumatic suit.

The treatment of *contusion* is similar. If improvement is delayed, resort to lumbar puncture, as it serves a two-fold purpose—relief of the condition and the finding of red blood cells, the presence of which confirms the diagnosis. Trephining in the temporal fossa may be necessary.

If there is *compression* of the brain from widespread extravasation of blood, edema, or clot, remove, if possible, whatever causes the compression and lessen the normal fluids of the brain. It may be necessary to remove some part of the skull, to prevent or relieve pressure on the cardiac or respiratory centers in the medulla. Here lumbar puncture may be dangerous, on account of the intracranial pressure becoming greater than the spinal pressure, thus pressing the brain against the foramen magnum or compressing the fourth ventricle. In the former, anemia will be produced; in the latter, edema of the medulla, with danger of death.

Solution By Drs. Gross and Erlich*

The child became stuporous in the evening, but this was mistaken for sleep by the mother (who had not been cautioned by the physician), who did not become alarmed about the patient's condition until midnight, when she was finally brought to the hospital, where death occurred shortly after admission.

Autopsy disclosed a small, linear fracture crossing the groove for the left middle meningeal artery, and a large, extradural clot on the left side. The brain was damaged *only by the compression of the clot*. There was no contusion of the brain and no subdural or subarachnoid bleeding.

The state of consciousness in extradural hemorrhage is not uniformly that of deep coma. The classical picture is of a lucid interval, followed by a progressively increasing coma, but one occasionally finds that, with increasing compression, the patient becomes drowsy, though easily aroused. This state is often mistaken for natural sleep, especially if the period of observation coincides with the period when natural sleep is expected. In this category belong the numerous patients who are found dead after an apparently trivial injury.

♦
We need some good problems, with solutions on separate sheets, for this Department.

* Adapted from "Diagnosis and Treatment of Head Injuries," by Drs. S. W. Gross and Wm. Ehrlich. New York: Paul B. Hoeber, 1940.

(Continued on page 383)

CLINICAL NOTES and ABSTRACTS

Microfilm copies of any of the published papers here abstracted, up to 25 pages, may be obtained for 25 cents from Microfilm Service, Army Medical Library, Washington, D.C.

Shock*

Shock is a condition characterized by progressive loss of circulating blood volume, due to generalized increase in capillary permeability. It may follow crushing injuries, loss of blood, dehydration, pain, fear, or severe toxemia.

(3) reflex vasoconstriction; or (4) toxic absorption.

Symptoms: Warning signs are thirst, anxiety, and restlessness. When these appear, it is time to begin preventive treatment of shock.

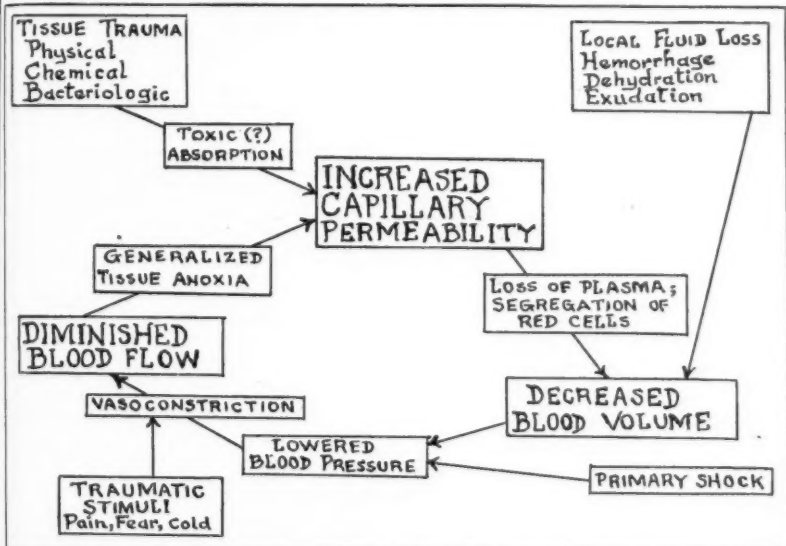


Fig. 1: The Process of Shock

Shock is a process, not a static condition. Its mechanism is shown in Fig. 1. It may be initiated by (1) local fluid loss, external or internal (into the tissue spaces, intestinal tract, etc.); (2) primary fall of blood pressure, due to reflex inhibition of cardiac or vasomotor tone causing pooling of blood in the veins;

When shock is actually present, the patient shows:

1. Grey, cyanotic pallor, especially of the face and lips.
2. Cold, clammy skin of the trunk and extremities.
3. A weak, rapid pulse, of poor volume.

Treatment is directed toward restoring and maintaining the circulation to the body tissues.

*Modern Concepts of Cardiovasc. Dis., Sept., 1942.

Transfusions of blood or plasma are the most effective treatment, as the fluid injected must contain colloids in order to maintain the blood volume permanently. Intravenous infusions of dextrose and saline solutions may be used to correct dehydration and in emergencies, until plasma is available.

Warmth is sound treatment, but excessive heat should be avoided, as it increases metabolism and fluid loss.

Rest, physical and mental, is essential in the treatment of shock; and immobilization of the injured part is helpful.

Morphine should be given (except in head injuries), in sufficient doses to relieve pain. Other sedatives, in small doses, may help by relieving anxiety and restlessness.

Stimulants (caffeine, strychnine, etc.) are of little value, and may be dangerous.

Time is required for the process of recovery, and transportation, manipulations, and operations should be postponed until the shock is controlled, as shown by restoration of the circulation and disappearance of the primary symptoms.

NORMAN E. FREEMAN, M.D.
Philadelphia, Pa.

Medico-Military Notes at the back of this Department.

Pain in the Chest

When studying a patient with chronic pain in the chest, one should remember that there is only one serious cause; i.e., disturbance of the coronary arteries. The first questions to be answered are: Is the pain due to oxygen deficiency of the heart? If acute, is it due to coronary thrombosis? If chronic and recurrent, is it due to angina pectoris?

Pain in the left shoulder and muscles of the upper arm and chest may be due, reflexly, to coronary disease. Arthritis of the spine may coexist with coronary disease.

Acute pericarditis may be confused with coronary disease. The onset is sudden, but the pain is more likely to be stabbing, increased by breathing, and less constrictive in character than the pain of coronary thrombosis. Fever and leukocytosis appear within 5 hours; in coronary thrombosis they do not appear for 2 or 3 days. If examined daily, a pericardial friction rub will often be heard.

Patients with pylorospasm are often thought to have coronary disease, because of thoracic or epigastric pain which radiates to the left shoulder and down

the arm. This pain, however, is entirely relieved by belching or atropine or sedatives, and is not affected by exertion or mental stress. These patients are able to walk up a number of flights of stairs with no pain, and often with little dyspnea.

Any pain in the upper abdomen, chest, neck, shoulders, or arms, which has no definite relation to physical exertion, should be considered angina pectoris until proved otherwise. The patient may perform work under the physician's supervision to see if pain begins.

—T. HARRISON, M.D., in J.A.M.A., Oct. 17, 1942.

Frozen Feet

Prevention of frozen feet: Carefully dry the socks, boots, and gum-boots regularly annoy the feet with oil.

Treatment of frozen feet: Do not rub with snow. When a foot or hand goes numb, warmth should be applied, never greater than body heat and without friction. If the circulation does not return, dry and wrap the affected limb, give it absolute quiet, warm the patient with hot drinks and adequate clothing, but do not use the excessive warmth of a hot cradle.

No matter how alarming the limb may look, it is never right to amputate at once. There have been instances in which the feet were black and hard above the ankle and the patient escaped with no more than the loss of a few phalanges. Spreading sepsis may require early amputation, but where the gangrene is dry, as it usually is, a line of demarcation should be awaited. — *South Med. & Surg.*, Sept., 1942.

Treatment of Ankle Sprains

Sprains about the ankle involve tearing of the various ligaments, especially the lateral. This lesion is often poorly treated when "home" remedies are used. Hot packs should never be used in the first 24 hours. Cold packs should be applied for relief of pain and swelling.

Severe sprains should be treated by complete fixation as soon as possible; the ankle should be strapped with adhesive tape. The foot is held in a neutral position, and two-inch lateral strips are applied on both sides of the leg, to prevent inversion or eversion, and are reinforced by circular straps arranged solidly from the metatarsal arch to about two inches above the ankle, leaving out the heel and lower part of the Achilles tendon. This will minimize swelling and,

much swelling is anticipated, an elastic bandage may be applied, over the adhesive, from the toes to the knee (the elastic bandage may be removed the next day).

The thorough strapping will immobilize the ankle, except for slight flexion, and extension; the patient is allowed to be on his feet. In cases showing an excessive amount of early swelling or enough skin damage to prevent strapping, immobilization should be secured by immediately applying a plaster of Paris cast.—L. J. Netto, M.D., in *South. Med. J.*, Aug. 1942.

(The injection of 2-percent Novocaine (procaine) solution into the very tender areas will stop pain at once and further swelling will not occur. If an elastic bandage is then applied, the patient can go back to work, or football, at once. —Ed.)

Conditions Simulating Cardiac Emergencies*

1.—An obese woman, who had had hypertension for a number of years, began to have attacks of epigastric pain, which were somewhat relieved by lying on the right side. The previous diagnosis of coronary thrombosis was wrong, because (1) the pain of coronary thrombosis is continuous, not paroxysmal; and (2) there is no position in which coronary pain is regularly relieved. Roentgenograms showed *gallstones*.

2.—A man of 66 suffered from attacks of dyspnea, which came on at night. Arteriosclerosis, hypertension, and slight enlargement of the heart were found. Many squeaking râles, inspiratory and expiratory, were found. The previous diagnosis of cardiac asthma was wrong, because when râles are cardiac in origin, they are inspiratory, moist, and heard only at the bases. If edema of the lungs had been present, the râles would have been bubbling and the patient very acutely ill. A diagnosis of *bronchial asthma* was made; the patient was much improved by potassium iodide and ephedrine.

3.—A man of 67 complained of shortness of breath, especially at night. He was cyanotic; his heart sounds were weak, but regular; his chest was hyperresonant. Roentgenograms revealed a normal heart and aorta. The original diagnosis had been cardiac decompensation. The cardiac sounds were weak because

the overdistended lungs muffled the sounds. Treatment for *bronchial asthma* markedly improved his dyspnea and cyanosis.

4.—A man of 58 had precordial pain, in attacks which were regularly relieved by a tablet of nitroglycerine, strychnine, or other medication. The pain was "sticking" and was always felt to the left of the sternum, just below the breast. He had always been very apprehensive about sickness in himself or any other member of his family. True anginal pain is *deep*; and the patient can never outline it definitely with a finger, as this man could. Later, his financial status improved and his symptoms disappeared. The true diagnosis was *hysteria*.

5.—A man of 44 complained of palpitation, precordial pain, and dyspnea. The pain was on the left side, below the nipple, and lasted only a few minutes. This case is one such as is commonly seen by most men in general practice. The diagnosis is *neurocirculatory asthenia*. Tremor and paresthesias, dizziness, sweating, and cold extremities are often complained of.

6.—A man of 44 had been in bed for 2 weeks, supposedly with coronary thrombosis. He gave a history of pains coming on rather suddenly. On careful questioning, he remembered having had some pains in the upper thoracic region. The heart and blood pressure were normal. He was entirely at ease lying in bed. When he tried to move, widespread pains over the left chest would appear. When he was first seen, the electrocardiogram was said to have shown coronary occlusion. X-ray examination disclosed arthritis of the cervical and upper thoracic vertebrae.

T. R. LITTLEJOHN, M.D.
Sumter, South Carolina.

Treatment of Bleeding After Tonsillectomy

Bleeding, occurring after tonsillectomy, may be stopped by (1) applying sponges soaked in a mixture of equal parts of glycerine, ferric chloride, and tincture of iodine; (2) by injecting a one or two-percent procaine solution, with 1:100,000 adrenalin (epinephrin), around the bleeding point; (3) by picking up the bleeding point with a hemostat and ligating it; (4) by suturing the pillars together over a gauze sponge; (5) by suturing the pillars and tonsillar fossa tissues so as to obliterate the fossa entirely; (6) by packing the fossa

**South Med. & Surg.*, May, 1942.

with gauze soaked with 50-percent dextrose solution, turpentine, viper venom solution, hydrogen peroxide, or adrenalin; and (7) by a blood transfusion. Bleeding not responding promptly to local treatment should be an indication for a blood transfusion. Even before the transfusion is over, bleeding will often stop and not recur.—R. L. GORRELL, M. D., in *Am. J. Surg.*, July, 1942.

Look for **THE LEISURE HOUR** among the advertising pages at the back.

The Treatment of Hiccup

From 10 to 15 minims of dilute hydrochloric acid, taken after meals, may relieve hiccups. A mustard plaster or other counterirritant may be applied to the upper abdomen. Chloretone is a useful remedy, prescribed thus:

R Menthol gr. $\frac{1}{4}$ (16 mg.)
Chloretone grs. iij (200 mg.)
Lactose q.s.

Sig.: To be taken every two hours.

If a gastric upset is the cause of the hiccups, this prescription may be used:

R Sodium bicarbonate
Bismuth carbonate
Magnesium carbonate
Magnesium oxide aa grs. x (0.65 Gm.)

Sig.: To be taken in warm water and repeated when necessary.—B. M. BHATTACHARYA, M.D., in *Indian Med. Rec.*, Dec., 1941.

The Diagnosis of Syphilis

The modern improved Wassermann reaction will become positive during the fifth week after the day of infection. The diagnosis, during the first weeks, can be made by finding the spirochetes in serum from the sore. A rash that is accompanied by repeatedly negative Wassermann tests, performed in an approved laboratory, is not due to syphilis. Any lesion may be non-syphilitic in spite of a constantly positive blood test, for the latter may result from latent syphilis.

A Wassermann test taken during acute disease is often unreliable, since non-specific reactions occur during tuberculosis or other febrile diseases, carcinoma, pregnancy, jaundice, continuous high fever, and metastatic carcinoma.

A spinal fluid test that is positive calls for treatment with fever therapy and pentavalent arsenicals. Central nervous system syphilis must be treated until the serologic test is negative. — R. BRANDT, M.D., in *Clin. J. Med.*, Apr., 1942.

Blood Pressure and Longevity

The analysis of more than a million blood pressure readings, taken during life insurance examinations, reveals that men who will live long lives have blood pressures below the "normal," as formerly taught.

Average Blood Pressure of Healthy Men

Age	Blood Pres.		Pulse Pres.
	Syst.	Diast.	
10	100	67	33
15	115	75	40
20	120	79	41
25	121	80	41
30	122	81	41
35	123	82	41
40	125	83	42
45	127	84	43
50	129	85	44
55	131	86	45
60	134	87	47

The upper limit for issuance of insurance policies (at standard rates) should be 133 to 142 systolic, with a diastolic not to exceed 90.—KARL ANDERSON, M.D., in *Journal-Lancet*, Sept., 1942.

Treatment of Leg Ulcers

Trauma to the front of the leg, including deep abrasions, shallow lacerations and dull puncture wounds, may lead to poorly-healing ulcers.

Recent injuries, in which scar tissue has not formed, can be successfully treated by local applications of silver nitrate, zinc oxide ointment, balsam of Peru, or other stimulating substances. The addition of pressure over the area by means of elastic adhesive tape, greatly shortens the period of healing. Care should be used that the adhesive tape does not completely encircle the leg, for fear of constricting the blood supply of the foot.

Wet dressings and the use of an electric-light cradle are of value in cases not responding to local applications and to those cases showing redness, swelling, and fever when first seen.

The chronic ulcer due to trauma, usually seen over the crest of the tibia, presents a mass of scar tissue over the base and edges, which wholly prevents healing. The edges of the ulcer may be freshened (cut a narrow strip of tissue from around the edges of the ulcer with a sharp knife), or multiple small incisions may be made across the edges and through the scar tissue base. Local in-

stration anesthesia is used. Stimulating applications are then applied (balsam of Peru or scarlet red ointment). When these measures fail, the ulcer should be completely excised and the wound edges sutured together or a skin graft applied. Injuries over old varicose areas about the lower leg and ankle almost invariably result in a varicose ulcer, which should be treated by elastic support (elastic tape or bandage).—L. J. NETTO, M.D., in *South, Med. J.*, Aug., 1942.

Vitamin Deficiencies in Tabes

Several reasons suggest that other factors besides syphilis have a part in producing the clinical picture of tabes, and there is reason to believe that among these are vitamin deficiencies, especially of vitamin E and the vitamin B complex.

Eighteen (18) patients were given treatment with these vitamins for from 3 months to 2 years. Of these, 17 received from 1 to 6 intraspinal injections of thiamin chloride, in doses of from 10 to 50 mg. All were given vitamin B complex and wheat germ oil by mouth.

The thiamin injections gave results similar to those following the intraspinal administration of arsphenamized serum, with no unpleasant reactions. The greatest improvement was in the gait, muscle strength and tone, coordination, bladder functions, and reduction of gastric crises and lightning pains.

This treatment can be given along with arsenical medication and fever therapy, and the results have been sufficiently good to warrant its more extensive trial in these cases.—SIMON STONE, M. D., in *J. Nerv. & Ment. Dis.*, 65:165, 1942.

(Continued from page 374)

mit various blood parasites, but definite studies are lacking. Brumpt lists the following living parasites found in leeches: tubercle bacilli, typhoid and paratyphoid, anthrax, typhus, recurrent fever, hemorrhagic jaundice, and malarial parasites, for man, and a number of others relatively specific to animals.³

Personally and from observation, I know how disagreeable they can be. They are not confined to streams, as many think, but exist by millions in damp, shady places, upon vegetation and on the ground.

Comments

Parasites do not belong only to the

³Brumpt, E.: "Précis de Parasitologie," 5th Ed., Paris: Masson et Cie., 1936, p. 1060.

tropics, though they exist there in larger numbers and varieties.

We will soon have a big problem with unfamiliar infestations, when our troops begin to return from all parts of the world, in addition to the public health problems we have had before.

As dysentery and malaria were once thought to be tropical diseases, and now we find them everywhere, these parasitic diseases are spreading, and we find Rocky Mountain spotted fever in the eastern states; tularemia in Alaska; malaria in Minnesota; and Chaga's disease (Brazilian trypanosomiasis), once thought to be confined to Brazil, now appears in California, for the *Reduvids* (kissing bugs), which transmit it, are found everywhere.

We cannot ignore the problem of medical parasitology, as it is daily becoming more evident how important is the part it plays in human medicine.

640 The Alameda

The Seminar

(Continued from page 378)

Problem No. 11 (Medical)*

Presented by James Burnet, M.A., M.D.,
Edinburgh, Scotland

The patient is a boy of 8 years, who is irritable. His appetite is poor; he tires easily but sleeps badly; eats a large amount of potatoes and candy; has an irritating cough; and often sweats at night. Sudden attacks of pallor and fainting have been noted. His weight has dropped ten pounds from its previous normal level last year. The mother believes that there is slight fever in the evening.

The youngster is pale; there are rings under his eyes; and his complexion is sallow. He is thin, although not emaciated; the pharynx is congested; the heart, lungs, nose, ears, abdomen, and rectum are normal; x-ray study of the chest is negative, as is also the tuberculin test; the blood count shows only a mild decrease in hemoglobin; urinalysis is negative; the temperature is 98° F.; the pulse, 90.

Sleep is abnormal and often disturbed. He wakes at night screaming, and does not recognize his parents. He gulps his food. Constipation is the rule, and the stools contain mucus at times.

Requirements: State your tentative diagnosis and what further studies you would have made, giving reasons. Outline the treatment.

*Adapted from a medical journal.

MEDICO-MILITARY NOTES

Eye Injuries in Wartime

IN AIR RAID casualties, the conjunctival sac is usually filled with mud and dirt. The sac should be irrigated thoroughly with a mild antiseptic solution for hours, until it is clean, before any operation is attempted.

Tear gas produces profuse tearing, swelling of the lids, and, at times, exfoliation of the corneal epithelium; but all these lesions heal quickly. Chlorine and phosgene gases produce conjunctivitis of varying intensity, but mustard gas (dichlorodithiethylsulphide) produces the most evil effect and its action is remarkable in its delayed nature.

The treatment of mustard gas injuries is symptomatic—immediate irrigation of the eyes with physiologic saline, sodium bicarbonate (1 or 2 percent), or boric acid solution, 2 percent, is helpful; and some believe that dichloramine T, ½ percent in chlorinated paraffin, is a good neutralizing solution. Cod-liver oil will prevent adhesions (symblepharon) later on.

If the cornea is involved, a 1-percent solution or ointment of atropine should be administered.

Relief of severe blepharospasm can be obtained with a drop of pontocaine, as it is important to open the lids and reassure the patient that he is not blind. Cocaine should *not* be used, because the sensitivity of the cornea is diminished and exfoliation of the corneal epithelium may be produced. Dark glasses should be worn, but they should be removed as soon as the patient feels better, in order to avoid symptoms of neurasthenia. Zinc sulphate, ¼ percent, with ephedrine, should be used in the period of convalescence.

Hysterical blindness is not uncommon in wartime—a shellshocked, wounded, or blasted person is likely to complain of blindness, though there is no physical injury to the eye. There may be functional blepharospasm, which can be followed by hysterical amblyopia.

Night-blindness may occur on a neurotic basis. The blackout in England is being overworked as a cause of imagined injury to sight or eyestrain, but blackouts are quite harmless to the eye, unless the person has a definite vitamin-A deficiency.—*OLGA SITCHEVSKA, M.D., in Sight-Saving Rev., June, 1942.*

Status of Medical Students and Interns

It is now provided that, instead of commissioning interns, at the time of graduation, as First Lieutenants, Medical Corps., Army of the U. S., they will continue in their R. O. T. C. line commissions (Infantry, Cavalry, etc.) throughout their 4 years of medical school and 1 year internship, and 60 days before completing their internship they may apply for commissions in the Medical Corps, Army of the U. S.

Under certain conditions of necessity loans may be made to certain professional students (including medical), to enable them to complete their education. Those who require such assistance should confer with the deans of their colleges regarding particulars.

Alien Physicians

The Army and Navy cannot accept enemy alien physicians as commissioned officers because of the citizenship law. Moreover, many of these physicians do not meet other requirements. They should enter the Army as privates, expecting to receive citizenship, after 3 months. Such physicians can sometimes be employed in civilian hospitals, where their professional training would be valuable. — Procurement and Assignment Service.

Hypnotics for Soldiers

IN WAR, a reduction of fears, if it can be obtained without too great a sacrifice of mental efficiency, is often as useful as intellectual stimulation.

Most physicians are aware of the power of sodium amylal (and other barbiturates) to calm the mind of a patient before operation. Controlled experiments have shown that from one to three grains of this drug will produce relative mental calm for about four hours, without any significant impairment of the mental faculties.—Editorial in *Lancet* (London), through *Science News Letter*, July 18, 1942.

If you never tried any hard marching, remember that army quartermasters have found that the best shoe soles will last for only ten days of shoe, rough hikes.

THUMBNAIL

THERAPEUTICS



Estrogens in Ozena

The subcutaneous implantation of pellets of estrogenic substances produced definite improvement in 13 out of 20 women and one of 4 men suffering from atrophic rhinitis (ozena) who were so treated. The relief seems to last for from 4 months to 2 years. — LLOYD K. ROSENVOLD, M.D., in *Archiv. Otolaryngol.*, June, 1942.

Trichomonas Vaginalis

• Dry, sieved cornstarch or powdered kaolin, insufflated into the vagina at intervals of one week, and douches composed of two tablespoonfuls of vinegar and one quart of water, taken each night at home, constitute a more effective treatment for trichomonas vaginitis than some expensive medicinal powders. — K. J. KARNAKY, M.D., in *Am. J. Surg.*, Oct., 1941.

Press the Prostate

• You would not massage a boil, so why massage an inflamed prostate? Firm digital pressure on the gland will cause the tense follicles to collapse, without danger of causing irritation or spreading infection.—DR. FRANK J. WILSON, *Osteo. Prof.*, Dec., 1941.

Morphine and Prostigmine

• Morphine and prostigmine methylsulfate are synergists. A dose of 8 mg. ($\frac{1}{4}$ grain) of the former drug will relieve pain as effectively as a 16 mg. dose, if it is combined with 0.5 mg. of prostigmine. This is especially important in view of the present morphine shortage.—DRS. D. SLAUGHTER and F. T. WRIGHT, Scientific Exhibit at A.M.A. meeting.

Desoxycorticosterone in Addison's Disease

• Desoxycorticosterone, deposited under the skin in Addison's disease, will be effective for weeks.—RUSSELL M. WILDER, M.D., Rochester, Minn., before M. V.M.S.

Amino Acids in Peptic Ulcer

• The oral administration of a mixture of essential amino acids* to human beings has shown that it (1) effectively buffers gastric acidity; (2) is a good source of amino nitrogen (of special value because of the limited diet eaten by ulcer patients); and (3) can be taken safely by normal individuals without the least discomfort. A solution of amino acids may be given every two hours, even to patients with bleeding ulcers. —J. S. LEVY, M.D., in *Am. J. Dig. Dis.*, Oct., 1942.

Sulfonamides in the Peritoneal Cavity

• Sulfanilamide may be left in the peritoneal cavity with the knowledge that it will not cause any marked irritation, will be absorbed readily, and will be effective in all parts of the area in which it is placed.

Sulfapyridine should not be used in wounds, as it causes a marked inflammatory reaction and later adhesion formation.

Sulfathiazole causes an immediate foreign body reaction and is slowly absorbed, thus making it ideal for use where later development of infection is feared, as in bowel suture or resection. Its use does not result in adhesion formation.—T. D. THROCKMORTON, M.D., in *Proc. Staff Meet. Mayo Clinic*, July 2, 1941.

Dietary Deficiency in Pregnancy

• The toxemia of late pregnancy is in reality a nutritional deficiency state. In a group of 750 pregnant women who were given a diet adequate in protein, vitamins, minerals, fat, and carbohydrate, there was no case of severe toxemia. The average pregnant patient eats too much carbohydrate foods, drinks too much liquids, and eats far too little protein. She should receive additional amounts of vitamins A, B complex, and C.—J. Int. Coll. Surg., Apr., 1941.

*Amigen, a purified, enzymatic hydrolysate of casein, prepared by the action of pork pancreas on a high grade of acid-precipitated casein; supplied by Mead, Johnson and Company, Evansville, Ind.

NEW BOOKS

Any book reviewed in these columns will be procured for our readers if the order, addressed to **CLINICAL MEDICINE**, Waukegan, Ill., is accompanied by a check for the published price of the book.

One function of literature is to reveal us to ourselves. Great literature is a mirror in which we see our reflection. It reflects both our beauty and our ugliness.

—Scully-Walton Magazine

TREATMENT IN GENERAL PRACTICE

Beckman

TREATMENT IN GENERAL PRACTICE. By HARRY BECKMAN, M.D., Professor of Pharmacology, Marquette University School of Medicine, Milwaukee, Wisconsin. Fourth Edition. Philadelphia and London: W. B. Saunders Company. 1942. Price, \$10.00.

This is the best single book of the abstract type. It is not a "scissors and paste" book, made up of undigested articles, but a considered, balanced presentation of methods that have been published. The author's experience in the laboratory tends to make him skeptical of premature bursts of praise for new remedies and unsupported claims.

The literature has been thoroughly searched for valuable contributions, which have then been grouped under their respective headings. The book is easy to use and of practical value. Exact, even minute, details of treatment are given.

Many newer diseases have been included in this, the fourth edition, such as vitamin E and vitamin K deficiency diseases, pyridoxin deficiency, sulfonamides toxicities, combinations and antidotes, muscular rheumatism, and so on.

SHORT-WAVE THERAPY

Bierman

THE MEDICAL APPLICATIONS OF THE SHORT WAVE CURRENT. By WILLIAM BIERMAN, M.D., Asst. Clin. Prof. of Phys. Therap., New York Univ. Coll. of Medicine, etc., with a Chapter on Physical and Technical Aspects by MYRON M. SCHWARZCHILD, M.A., Inst. of Physics in Radiol., N. Y. Univ. Coll. of Med. 2d Edition. Baltimore: The Williams & Wilkins Co. 1942. Price, \$5.00.

Short-wave therapy has been generally accepted as having a definite place in the armamentarium of the physician, and there is probably no better presentation of the subject than Dr. Bierman's book.

Here one will find a clear statement of the physical, technical, and physiologic principles that underlie this method, and a review of the therapeutic results obtained by leading physical therapists, along with comments from the author's own wide experience.

This second edition includes all the new work that has developed since the former edition was published, and brings the work up to date.

All clinicians should know what can be expected from this method, whether they ever use it personally or not, and this volume will give them the information they need.

FIRST AID Cole and Puestow

FIRST AID: MEDICAL AND SURGICAL. By WARREN H. COLE, M.D., F.A.C.S., Professor and Head of the Department of Surgery, University of Illinois College of Medicine, etc., and CHARLES B. PUESTOW, B.S., M.D., Ph.D., F.A.C.S., Associate Professor of Surgery, University of Illinois College of Medicine, etc. Illustrations by Carl Linden and Tom Jones. New York and London: D. Appleton-Century Company. 1942. Price, \$3.00.

At last, the physicians who are teaching first aid will have a reliable, well illustrated, and easily readable text for their classes. The material is up to date, sensibly presented, and without the confusing details found in many manuals.

No suggestion is given that might injure the patient. For example, in considering fracture of the jaw, the first aider is told specifically not to use the old four-tailed bandage tie over the head and behind the neck, because of danger of displacing the fragment and the possibility of pushing the tongue into the pharynx and blocking respiration. The common-sense suggestion is made that the muscles will usually hold the broken bones in position fairly well until medical attention can be secured, or if necessary, a simple bandage or handkerchief can be tied under the chin and over the top of the head.

Each chapter considers a specific type of injury or treatment—bandaging, first aid principles, fractures, bleeding, shock, and so on. Seventeen specialists contribute a chapter about their fields.

SUMMARY OF EXTRASENSORY PERCEPTION

EXTRASENSORY PERCEPTION AFTER SIXTY YEARS: A Critical Appraisal of the Research in Extrasensory Perception. By J. B. RHINE, Prof. of Psychology; J. G. PRAATT, BURKE M. SMITH, and CHARLES E. SWART, his assistants; and JOSEPH E. GREENWOOD, Asst. Prof. of Mathematics, all of Duke University. New York: Henry Holt & Co. 1940. Price \$2.75.

For 60 years or more, reputable investigators have been trying to find out whether the human mind can learn anything of the external world by any means other than the ordinary physical senses.

When Prof. Rhine published his "New Frontiers of the Mind," in 1937, he exploded a bomb under the smug, orthodox psychologists, and the reverberations still continue. He and his co-workers have put telepathy and clairvoyance on a quantitative basis, under university auspices.

In this volume, the historical background of this work is briefly summarized, and the rest of the book is devoted to a statement of the methods used and the results; the objections raised by critics, with answers to them; and a discussion of the validity of the mathematical evaluation of results, by Prof. Greenwood.

No open-minded and thoughtful person (especially no psychologist, in which class all physicians should be included) can afford to deny himself the opportunity to study this presentation of truly epoch-making research.

Unless heaven be within a person, nothing of the heaven that is out of him can enter into him and be received.—SWEDENBORG.

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LEADING ARTICLES

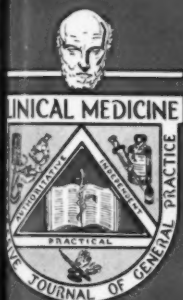
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NUMBER 12



DECEMBER
1942



The coveted Army-Navy "E" has been awarded to Abbott Laboratories for high achievement in the production of vital war supplies.



Nights that start the next day wrong

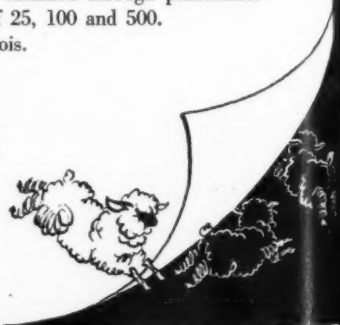


Nights spent rolling, tossing, worrying about tomorrow's operation are poor preoperative preparation for any patient. Rapid yet safe sedation in such a circumstance is desired by patient and physician alike.

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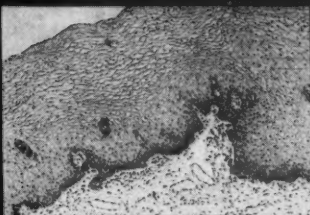
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[CALCIUM ETHYL (1-METHYL BUTYL) BARBITURATE, ABBOTT]



VAGINAL BIOPSY. Second week of 28-day cycle. Shows normal histological characteristics.



VAGINAL BIOPSY. Third week of 28-day cycle. After 9 mos. daily application of Ortho-Gynol. Vaginal epithelium of normal thickness. Layers well differentiated. Submucosa normal. No evidence of inflammation.

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A recently-completed study involving the daily intravaginal application of Ortho-Gynol

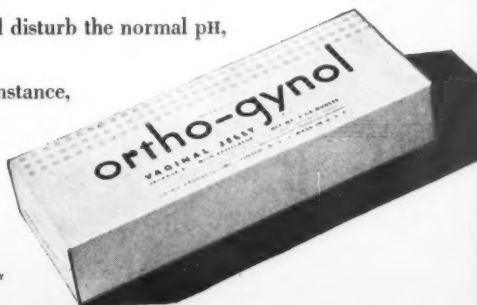
in 100 normal women over a period of 6 to 11 months, revealed no irritation

in any patient. In no instance did Ortho-Gynol disturb the normal pH,

glycogen content or bacterial flora. In every instance,

the normal histologic characteristics of

the mucosa were maintained.



Cyclical Acne...

A Distressing Problem at and after Puberty



● At puberty, the condition of a girl's skin becomes a major concern to her. At this time, too, unfortunately, many young girls are troubled by outbreaks of acne. These eruptions usually are related to the menstrual cycle. They may in fact clear up entirely between periods only to reappear before the next menstruation. Some women are troubled by such eruptions throughout the period of active gonadal function. Headache of variable severity is often associated with the acne attacks. This condition may be attributed to the relationship between ovarian activity and the sebaceous glands of the skin.

Good results have been obtained through treatment with ARMOUR OVARIAN

CONCENTRATE GLANULES. The usual dosage is one capsule three times daily for one month. After this preliminary treatment, one capsule three times daily, for seven to ten days, pre-menstrually, may suffice. Severe cases may require two capsules three or four times daily for prolonged periods. The ovarian pain and the irregularities in flow which frequently accompany the dermatologic manifestations may also yield to this form of therapy.

Hypertrichosis is another troublesome condition which has been benefited by OVARIAN CONCENTRATE GLANULES. Depilation may be facilitated and regrowth prevented, but normal hair growth does not appear to be affected.

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